U.S. Department of Health and Human Services
Assistant Secretary for Planning and Evaluation
Office of Disability, Aging and Long-Term Care Policy

MEDICAID SUBSTANCE ABUSE TREATMENT SPENDING:

FINDINGS REPORT

September 2012

Office of the Assistant Secretary for Planning and Evaluation

The Office of the Assistant Secretary for Planning and Evaluation (ASPE) is the principal advisor to the Secretary of the Department of Health and Human Services (HHS) on policy development issues, and is responsible for major activities in the areas of legislative and budget development, strategic planning, policy research and evaluation, and economic analysis.

ASPE develops or reviews issues from the viewpoint of the Secretary, providing a perspective that is broader in scope than the specific focus of the various operating agencies. ASPE also works closely with the HHS operating divisions. It assists these agencies in developing policies, and planning policy research, evaluation and data collection within broad HHS and administration initiatives. ASPE often serves a coordinating role for crosscutting policy and administrative activities.

ASPE plans and conducts evaluations and research--both in-house and through support of projects by external researchers--of current and proposed programs and topics of particular interest to the Secretary, the Administration and the Congress.

Office of Disability, Aging and Long-Term Care Policy

The Office of Disability, Aging and Long-Term Care Policy (DALTCP), within ASPE, is responsible for the development, coordination, analysis, research and evaluation of HHS policies and programs which support the independence, health and long-term care of persons with disabilities--children, working aging adults, and older persons. DALTCP is also responsible for policy coordination and research to promote the economic and social well-being of the elderly.

In particular, DALTCP addresses policies concerning: nursing home and community-based services, informal caregiving, the integration of acute and long-term care, Medicare post-acute services and home care, managed care for people with disabilities, long-term rehabilitation services, children's disability, and linkages between employment and health policies. These activities are carried out through policy planning, policy and program analysis, regulatory reviews, formulation of legislative proposals, policy research, evaluation and data planning.

This report was prepared under contract #HHSP23320095642WC between HHS's ASPE/DALTCP and Mathematica Policy Research. For additional information about this subject, you can visit the DALTCP home page at http://aspe.hhs.gov/_/office_specific/daltcp.cfm or contact the ASPE Project Officer, John Drabek, at HHS/ASPE/DALTCP, Room 424E, H.H. Humphrey Building, 200 Independence Avenue, S.W., Washington, D.C. 20201. His e-mail address is: John.Drabek@hhs.gov.

MEDICAID SUBSTANCE ABUSE TREATMENT SPENDING: Findings Report

Ellen Bouchery
Rick Harwood
Rosalie Malsberger
Emily Caffery
Jessica Nysenbaum
Kerianne Hourihan

Mathematica Policy Research

September 28, 2012

Prepared for
Office of Disability, Aging and Long-Term Care Policy
Office of the Assistant Secretary for Planning and Evaluation
U.S. Department of Health and Human Services
Contract #HHSP23320095642WC

TABLE OF CONTENTS

LIST OF FIGURES AND TABLES

ACRONYMS

ASAM	American Society of Addiction Medicine
BHO	behavioral health organization
BOE	basis-of-eligibility
CADA	Certified Alcohol and Drug Counselor
Cl	clinic
CMS	HHS Centers for Medicare and Medicaid Services
CY	calendar year
EDB	enrollment data base
EPSDT	early and periodic screening, diagnostic, and treatment
ER	emergency room
F-SHRP	Federal-State Health Reform Partnership
FFS	fee-for-service
FMAP	federal medical assistance percentage
FY	fiscal year
HCB	home and community-based waiver services
HCPCS	Healthcare Common Procedure Coding System
HHS	U.S. Department of Health and Human Services
HIO	health insuring organization
HMO	health maintenance organization
HOA	health opportunity account
Inp	general inpatient
IP	inpatient (MAX file)
LT	long-term care (MAX file)
M-CHIP	Medicaid expansion Children's Health Insurance Program
MAX	Medicaid Analytic eXtract
MCO	managed care organization
MFP	Money Follows the Person
MH	mental health
MMIS	Medicaid Management Information System
MnDHO	Minnesota Disability Health Options
MSHO	Minnesota Senior Health Options program
MSIS	Medicaid Statistical Information System

N-SSATS	National Survey of SA Treatment Services
NASADAD	National Association of State Alcohol and Drug Abuse Directors
NDC	National Drug Code
NHEA	National Health Expenditure Accounts
NSDUH	National Survey on Drug Use and Health
OT	other services (MAX file)
Outp	outpatient hospital
PASARR	Preadmission Screening and Annual Resident Review
PCCM	primary care case management
PHP	Pre-paid Health Plan
Phys	physician
PIHP	Pre-paid Inpatient Health Plan
PPO	preferred provider organization
Prac	other licensed practitioners
PRTF	psychiatric residential treatment facility
PS	person summary (MAX file)
QEx	QUEST Expanded
RBF	restricted-benefit flag
Rhb	rehabilitation
RX	prescription drug (MAX file)
S-CHIP	State Children's Health Insurance Program
SA	substance abuse
SAMHSA	HHS Substance Abuse and Mental Health Services Administration
SPCM	specialty physician case management
SSE	SAMHSA Spending Estimates
SSR&E	SAMHSA Survey of Revenue and Expenditures
SUD	substance use disorder
TCM	targeted case management
WMIP	Washington Medicaid Integration Program

EXECUTIVE SUMMARY

This report presents the findings of a study conducted by Mathematica Policy Research to improve knowledge about the data on Medicaid substance abuse (SA) treatment available in the Medicaid Analytic eXtract (MAX), develop methods for using these data to estimate Medicaid SA treatment spending, and generate estimates of Medicaid SA treatment spending in calendar year (CY) 2008 and projections for fiscal year (FY) 2011.

The estimates in this study were developed based on MAX data. However, there are gaps in representation of the Medicaid population in MAX. The most significant gap is incomplete reporting of services provided to managed care enrollees. In addition, data quality issues, reporting anomalies, and inconsistencies in reporting account for other data gaps. We addressed these gaps by imputing expenditures for the managed care enrollees and other populations for whom fee-for-service (FFS) claims data were not available.

This study produced two sets of findings. The first set focuses on a limited number of states for whom FFS SA treatment claims representing a majority of the Medicaid population in the state were available in MAX. The second set of findings reports national estimates of SA treatment expenditures for CY 2008 and projections to FY 2011. A summary of each of these sets of findings is presented here.

SA Spending in the FFS States

Across the 18 states with representative FFS data in MAX, spending on SA services accounted for less than 1 percent of total Medicaid spending. On average, these states spent $6.16 per Medicaid enrolled month 12 or older on medical services to treat a SA diagnosis. There was extreme variation across states in the average amount spent on SA treatment services, from less than $3 per enrolled month to over $26. This variation appears to be linked to differences between states in the supply of specialty SA treatment providers as well as to Medicaid program decisions regarding coverage of optional populations and optional benefits. States that have chosen to expand Medicaid coverage to optional adult populations, or to cover optional SA treatment services such as residential treatment programs and case management, tend to have higher average spending.

Despite mandatory coverage of SA treatment services for children through the early and periodic screening, diagnostic, and treatment benefit, across all 18 states, adolescents 12-17 represented only 18.1 percent of SA treatment expenditures, with males incurring twice the expenditures of females. Working age adults ages 18-64 represented 75.0 percent of SA treatment expenditures, with 38.9 percent of

expenditures for females and 36.1 percent for males. Enrollees 65 or older represented 6.7 percent of expenditures, with males having more than double the expenditures of females.

About half of all SA spending in these states was for outpatient services, which were used by almost 90 percent of beneficiaries with a SA diagnosis. The next highest share of spending was 35.2 percent for inpatient hospital care. Prescribed drugs and residential treatment represented 5.4 percent and 7.5 percent, respectively.

Overall, 21.4 percent and 62.4 percent of enrollees with an SA diagnosis identified in CY 2008 MAX data used the emergency room with an SA-related or any diagnosis, respectively. Among the same group 33.6 percent had a SA-related inpatient hospital stay. Overall expenditures for enrollees with an identified SA diagnosis were 2.19 times higher than the average for Medicaid enrollees 12 or older.

National SA Spending Estimates

Medical expenditures to treat a SA disorder were 3.4 billion in CY 2008 (Table ES-1). These services were received by 1.1 million persons (Table ES-2) averaging 3,000 per service user per year. This spending amounted to slightly less than 1.0 percent of the total 334 billion spent on Medicaid, and provided care to about 1.9 percent of the 61 million persons covered by Medicaid.[1] An estimated total of 2.0 billion--or 59 percent--of these expenditures were provided through FFS Medicaid, with the remaining 1.4 billion provided through Medicaid managed care plans. The Federal Government paid for 57 percent of these services.

TABLE ES-1. Medicaid Substance Treatment Spending, CY 2008 and FY 2011

Type of SA Service	CY 2008 (in millions $)	FY 2011 (in millions $)	Annualized Percentage Growth Rate
Core SA Treatment Services	3,367	3,952	6.0
Fetal Drug or Alcohol Exposure and Poisoning	87	98	4.6
Other Medical Conditions 100% Attributable to SA	257	292	4.8
MH Services with SA as a Secondary Diagnosis	1,432	1,586	3.8
Non-MH Services with SA as a Secondary Diagnosis	3,290	3,659	3.9

Spending is projected to have increased to 4.0 billion in federal FY 2011, just slightly slower than the increase in total Medicaid spending, which reflects the long-term correlation between SA treatment and total Medicaid spending.

[1] Total Medicaid expenditures and enrollment are based on federal FY 2008 as reported by the Centers for Medicare and Medicaid Services at http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-State/By-State.html.

TABLE ES-2. Medicaid Substance Treatment Users, CY 2008	
Type of SA Service	**CY 2008 (in thousands)**
Core SA Treatment Services	1,138
Fetal Drug or Alcohol Exposure	35
Poisoning Related to Drugs or Alcohol	25
Other Medical Conditions 100% Attributable to SA	53
MH Services with SA as a Secondary Diagnosis	281
Non-MH Services with SA as a Secondary Diagnosis	575
Total Enrollees Identified with SA Related Claim[a]	1,717
a. Rows above do not sum to this total because some users are identified on more than one type of claim.	

Beyond the medical expenditures to treat SA disorders, this study estimated additional categories of costs solely or partially attributable to SA disorders. While these costs are not included in the national SA treatment expenditures, estimated by the Substance Abuse and Mental Health Services Administration (SAMHSA) and known as the SAMHSA Spending Estimates (SSE), such costs generally are included in cost-of-illness studies of drug and alcohol disorders. Costs solely due to drugs and alcohol include fetal exposure to alcohol and/or drugs (49 million, 35,000 persons); alcohol and/or drug poisoning (38 million, 25,000 persons); and other drug and/or alcohol-caused disorders (257 million, 53,000 persons). Much more extensive costs were caused partially by drug/alcohol disorders: mental health (MH) disorders with a co-morbid SA diagnosis (1.4 billion and 282,000 persons) and other health disorders with a co-morbid SA diagnosis (3.3 billion and 575,000 persons). Only a small fraction of these latter costs are due to drug/alcohol disorders, as these expenditures are related primarily to other conditions.

Discussion

The data quality behind these estimates is reasonably strong. SA treatment utilization data were available for 58 percent of Medicaid enrolled months. The data were missing primarily due to non-reporting of services for Medicaid managed care enrolled months. Utilization and expenditures for the 42 percent of enrolled months with missing data were imputed based either on data from the same state for FFS-insured beneficiaries or the average of data from 18 states with very complete reporting. Imputations were adjusted for age, gender, disability status, Medicare enrollment, and the availability/supply of SA treatment service in the state. Each of these factors was a strong and statistically significant predictor of per-capita utilization of and spending on SA treatment. The imputations represented 42 percent of the final estimates spending on medical treatment for SA disorders.

The estimate of Medicaid core SA treatment spending developed in this study for CY 2008 differs from the projected Medicaid SA treatment spending developed by

SAMHSA in the SSE projections for 2004 to 2014.[2] While no CY 2008 data point is displayed in the earlier SAMHSA study, it did project the 2006 level of Medicaid spending for SA treatment to be $4,279 million while this study indicates the spending as of 2008 to be $3,267 million. While the current study is limited because of the level of imputations, the SSE estimates were limited because data on unit prices and the "payer source" distribution for specialty SA treatment providers were unavailable to support development of the SSE after 1998--prior to the SAMHSA Survey of Revenue and Expenditures in 2009.

The core SA treatment estimates from this study parallel the estimates from the SSE including only services with a primary diagnosis of SA treatment. However, in this study we also examined spending on treatment for other medical conditions that are caused by SA. The addition of services with a primary diagnosis of fetal exposure, poisoning, and other medical conditions fully related to SA increased the estimate of expenditures for SA treatment by about 10 percent. In contrast to the SSE, this study also estimated spending on services with a secondary diagnosis of SA. We identified $1,433 million in expenditures for MH services with a secondary diagnosis of SA and $3,290 million in Medicaid expenditures for services with a non-MH primary diagnosis and a SA secondary diagnosis. Thus, overall slightly more than 1 percent of Medicaid spending was identified as primarily related to SA and an additional 1½ percent of total Medicaid spending was identified with a secondary SA diagnosis. Both the current study and the SSE exclude costs not directly related to treatment, such as costs stemming from lower productivity, missed workdays, and/or SA-related crimes.

[2] Levit, K.R., C.A. Kassed, R.M. Coffey, T.L. Mark, D.R. McKusick, E. King, R. Vandivort, J. Buck, K. Ryan, and E. Stranges. *Projections of National Expenditures for Mental Health Services and Substance Abuse Treatment, 2004-2014*. SAMHSA Publication No. SMA 08-4326. Rockville, MD: SAMHSA, 2008.

I. INTRODUCTION

As federal and state substance abuse (SA) agencies work to establish priorities and coordinate their efforts, policymakers need reliable national and state estimates of Medicaid SA treatment spending and accurate methods for projecting Medicaid and Medicare SA spending. Spending estimates and projections are essential both for aligning funding with policy objectives and developing realistic budgets to support treatment and prevention. Given these needs, the Office of the Assistant Secretary for Planning and Evaluation in the U.S. Department of Health and Human Services (HHS) and the Office of National Drug Control Policy contracted with Mathematica Policy Research to conduct this study with the following purposes:

- To improve knowledge about the data on Medicaid SA treatment available in the Medicaid Analytic eXtract (MAX).

- To develop methods for using these data to estimate Medicaid SA treatment spending accurately and efficiently.

- To generate estimates of Medicaid SA treatment spending in calendar year (CY) 2008 and projections for fiscal year (FY) 2011.

This report presents the findings of this study.[3] In the next section, we provide a brief overview of the study data and methods. In Section III, we present SA treatment expenditure estimates for CY 2008 for states with predominant fee-for-service (FFS) coverage of SA. In Section IV, we review FFS spending estimates derived from MAX CY 2008 for the remaining states. The estimates in Section IV should be interpreted with caution, as they are not representative of all SA treatment spending in these states. A substantial portion of the SA treatment spending in these states is provided through pre-paid health plans and is not included in these estimates. Nevertheless, these estimates are reported to provide policymakers with information about FFS SA treatment spending in these states. Total FFS and managed care imputed expenditures are reported for all states and nationally in Section V. Section V also reports SA treatment spending projections nationally for federal FY 2011.

[3] Technical issues related to this study are discussed in a separate report: Developing Medicare and Medicaid Substance Abuse Treatment Spending Estimates. Available at http://aspe.hhs.gov/daltcp/reports/2012/MSATest.shtml.

II. OVERVIEW OF DATA AND METHODS

In this chapter, we provide a brief overview of the data and methods for this study. A more complete description of the study methods is provided in Appendix A. The primary data sources are the MAX files for CY 2008. These data contain detailed information on Medicaid enrollment and the services received by Medicaid enrollees in each of the 50 states and the District of Columbia but do not reflect all services received by Medicaid beneficiaries. The most significant gap is incomplete reporting of services provided to managed care enrollees. In addition, data quality issues, reporting anomalies, and inconsistencies in reporting account for other data gaps. We address these gaps by imputing expenditures for the managed care enrollees and other populations for whom FFS claims data are not available. In the next section, we describe our approach to identifying and classifying services provided under FFS Medicaid. In Section II.B, we provide an overview of our approach to imputing expenditures for Medicaid enrollees with managed care coverage of SA or for whom FFS data are lacking in the MAX files.

A. Identification of FFS SA Treatment Expenditures

We used the CY 2008 MAX person summary (PS), inpatient (IP), other services (OT), long-term care (LT), and prescription drug (RX) MAX files to identify beneficiaries receiving SA services and their associated Medicaid expenditures. In these files, we identified FFS claims providing SA treatment in the following categories:

1. **Core SA treatment services.** This category includes claims for services with a primary diagnosis of an SA disorder. In Appendix Table B.1 and Table B.2, we display the diagnosis codes that we used to define treatments of alcohol and drug disorders, respectively. The third column of the tables identifies these services as "core." The diagnosis codes are consistent with those used by the Substance Abuse and Mental Health Services Administration (SAMHSA) in its estimates of National Expenditures for Mental Health Services and Substance Abuse Treatment, referred to as the SAMHSA Spending Estimates (SSE).[4] Prescribed drugs for SA treatment are also included in this category. We identified prescribed drugs used to treat SA based on National Drug Codes. The codes used to identify SA treatment are listed in Appendix Table B.3.

[4] Levit, K.R., C.A. Kassed, R.M. Coffey, T.L. Mark, D.R. McKusick, E. King, R. Vandivort, J. Buck, K. Ryan, and E. Stranges. *Projections of National Expenditures for Mental Health Services and Substance Abuse Treatment, 2004-2014*. SAMHSA Publication No. SMA 08-4326. Rockville, MD: SAMHSA, 2008.

2. **Services related to fetal drug or alcohol exposure.** This category includes services with a primary diagnosis of fetal drug or alcohol exposure. In Appendix Table B.1 and Table B.2, the services are identified as "fetus."

3. **Services related to poisoning by drugs or alcohol.** This category includes services with a primary diagnosis of poisoning related to drugs or alcohol. In Appendix Table B.1 and Table B.2, the services are identified as "poisoning."

4. **Medical services for other conditions 100 percent attributable to SA.** This category includes claims for other services with a primary diagnosis of a medical condition 100 percent attributable to SA. This category includes conditions such as alcoholic polyneuropathy and polyneuropathy due to drugs, as well as acute alcoholic hepatitis and alcoholic cardiomyopathy, gastritis, fatty liver, cirrhosis of the liver, and liver damage. In Appendix Table B.1 and Table B.2, the services are identified as "supplemental."[5]

5. **Mental health (MH) services with a secondary diagnosis of SA disorders.** This category includes services with a primary diagnosis of a mental disorder and a secondary diagnosis on the same claim from one of the first four groups above. We identified claims with a primary MH diagnosis based on the codes listed in Appendix Table B.3.

6. **Other medical services with a secondary diagnosis of SA disorder.** This category includes claims with primary diagnoses not identified as MH disorders but with a secondary diagnosis from the first four categories above.

All Medicaid enrollees with an FFS claim in any of the six categories above were labeled as SA treatment users in the results of this study. We used the Medicaid Statistical Information System (MSIS)-ID to identify enrollees who had multiple FFS claims. Based on the MSIS-ID, we created an unduplicated count of FFS SA treatment users. Within a state, Medicaid enrollees are assigned a single MSIS-ID. However, enrollees who receive treatment in more than one state would be assigned a different MSIS-ID in each state and thus would be counted once in each state. For each Medicaid enrollee identified as an SA treatment user, in addition to extracting SA treatment claims, we also extracted all claims with a primary diagnosis of an MH disorder and all claims for inpatient hospital and emergency room (ER) services. Additional information on Medicaid expenditures, eligibility, and demographic characteristics for SA treatment users was also obtained from each user's MAX PS file record.

[5] Bouchery, E.E., H.J. Harwood, J.J. Sacks, C.J. Simon, and R.D. Brewer. "Economic Costs of Excessive Alcohol Consumption in the United States, 2006." *American Journal of Preventive Medicine,* November 2011; Harwood, H., D. Fountain, and G. Livermore. *The Economic Costs of Alcohol and Drug Abuse in the United States, 1992*. National Institute on Drug Abuse Publication Number 98-4327. Rockville, MD: National Institutes of Health, 1998.

B. Imputation of Managed Care Expenditures

Our method for estimating managed care SA treatment users and expenditures differed by state, depending on the extent to which state-specific information was available. We divided the states into three groups according to the level and type of available state-specific information. Some states may fall into two groups if they have high managed care penetration in some basis-of-eligibility (BOE) groups but not in others. The three groups of states follow:

- **Managed care states with usable encounter data.** In these states, we imputed expenditures as the product of the number of service units provided in the state's managed care encounter data and the cost per service unit from its FFS data.

- **Other managed care states with less than 60 percent penetration in a given BOE group.** In these states, we imputed expenditures as the product of the number of managed care enrolled months and expenditures per enrolled month by eligibility/demographic group from the state's FFS enrollees.

- **Other managed care states with 60 percent or greater penetration in a given BOE group and FFS states with substantial FFS data quality issues.** In these states, we imputed expenditures as the product of the number of managed care enrolled months and expenditures per enrolled month by eligibility/demographic group from similar states' FFS enrollees.

Maine only reported prescribed drug claims in 2008. Thus, IP/LT/OT claims were not available for Maine in MAX 2008. Because claims data were not available for Maine, its expenditures were imputed in the same manner as a state with more than 60 percent managed care penetration. We considered using a prior year of data to estimate Maine's expenditures, but Maine also did not report IP/LT/OT claims in 2007. A detailed description of the imputation methods is provided in Appendix A.

C. Estimating Federal Share

We calculated the federal share of each state's SA treatment expenditures in 2008 based on its federal medical assistance percentage (FMAP). The Kaiser Family Foundation provides an FMAP time series from 2004 to 2011, with links to corresponding *Federal Register* notices.[6]

[6] Available at http://www.statehealthfacts.org/comparetable.jsp?ind=184&cat=4. Accessed July 29, 2012.

D. Methods for Projecting 2008 Estimates to FY 2011

We projected the FY 2008 estimates to FY 2011 based primarily on information reported by state Medicaid programs in CMS-64. The CMS-64 reports summarize annual Medicaid expenditures for each state. Information from the forms was available through FY 2011 for each state by service category.[7] We used these data to project CY 2008 MAX data to FY 2011. SA treatment costs for each state and category of service (for example, inpatient, outpatient, prescription drugs) are projected to FY 2011 based on the annual change in overall Medicaid expenditures for the state among similar services between FY 2008 and FY 2011. Given that the rate of growth in SA treatment expenditures (as identified in the SSE) historically has fallen below that of general health care expenditures as identified in the Centers for Medicare and Medicaid Services (CMS) National Health Expenditure Accounts, we estimated the SA treatment spending trend as only 98 percent of the trend observed for overall Medicaid program spending in each category.

[7] Available at https://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidBudgetExpendSystem/CMS-64-Quarterly-Expense-Report.html. Accessed on July 30, 2012.

III. SPENDING IN PREDOMINANTLY FEE-FOR-SERVICE STATES

In this section, we focus on spending in the 18 states that had predominantly FFS coverage of SA treatment in CY 2008. Spending in the other 32 states and the District of Columbia is excluded from this discussion because FFS claims data were not available for a substantial share of the SA treatment services provided in the state, or because of data quality issues.

In the next section, we provide background on Medicaid eligibility guidelines and SA treatment coverage and reimbursement methods in these states. In Section III.B, we report our findings about SA treatment expenditures in these states. Finally, in Section III.C, we describe the Medicaid enrollees identified as SA treatment users in these states.

A. Description of Predominantly FFS States

In this section, we first describe how we selected these 18 states for this analysis. Then, we describe differences across these states in the individuals eligible for Medicaid and in Medicaid coverage of SA treatment services. We also describe differences in the supply of SA treatment services across these states.

1. Criteria for Inclusion

We selected the 18 states included in this section because they had predominantly FFS coverage of SA services and had limited data quality issues. Unfortunately, the CY 2008 MAX files did not include comprehensive encounter data for Medicaid enrollees in managed care programs. The 18 states with SA services and users described in this section thus are limited to those with FFS coverage of SA treatment; these FFS claims data in MAX are broadly representative of the SA treatment services provided to Medicaid enrollees in the state.

We used a two-stage process to identify states with predominantly FFS coverage of SA. First, we identified which states had Health Maintenance Organizations (HMOs), Managed Behavioral Health Organizations (BHOs), or both within their Medicaid program generally. We then looked at the program descriptions for the plans operating in the state to determine whether MH or SA treatment services were provided through the managed care plans operating in that state.

Table III.1 presents findings for the 50 states and the District of Columbia for the first stage of this analysis. We selected 11 of the 18 predominantly FFS states based on this first stage because they were identified as not using an HMO or BHO to provide

services to their Medicaid population. In this analysis, we did not include two of the 13 states identified as FFS-only because of data quality issues. We identified Maine as an FFS-only state but excluded it from our analysis because it is missing a substantial amount of data, having been unable to report accurately on inpatient, long-term care, and other services in MAX 2008; only eligibility and prescription drug information were reported for the state. Alaska was also excluded because only 57 percent of its other services file claims had a primary diagnosis code, and SA services were identified for this analysis based on primary diagnosis.

TABLE III.1. State Medicaid Delivery Systems		
Managed Care	**Count**	**States**
FFS-Only	13	AK, AR, ID, LA, ME, MS, MT, NH, ND, OK, SD, VT, WY
State Has Only HMO	18	AL, CA, CT, DE, DC, IL, IN, KY, MD, MN, MO, NV, NJ, OH, RI, SC, VA, WV
State Has Both HMO & BHO	18	AZ, CO, FL, GA, HI, IA,[a] KS, MA, MI, NE, NM, NY, OR, PA, TN, TX, WA, WI
State Has Only BHO	2	NC, UT
SOURCE: MAX 2008 Eligibility Anomaly Tables. a. Iowa had only one HMO, with low enrollment, which left in the state in 2008.		

In the next stage, for each state using an HMO or BHO we assessed whether MH and/or SA services were covered by the managed care organization. We examined the 2008 National Summary of State Medicaid Managed Care Programs. This report provided qualitative information, including populations served, services covered, and quality improvement activities. The information in the report was not always sufficiently detailed to determine SA treatment coverage. In particular, if no information was reported about SA treatment coverage, we assumed that the organization providing MH services in the state also provided SA treatment. Table III.2 displays for each state whether MH and SA services were covered by an HMO, carved out of an HMO and covered through FFS or by a BHO, included under both an HMO and a BHO, or covered under a BHO if the state had no HMO.

TABLE III.2. SA and MH Services Coverage, by Delivery System		
SA Coverage	**Count**	**States**
SA services covered exclusively by HMO	23	AZ, DE, DC, FL, GA, HI, IL, IN, MD, MA, MI, MN, MO, NJ, NV, NY, OH, OR, RI, TN, TX, VA, WI
SA services carved out of HMO & provided through FFS	2	AL, KY
SA services carved out of HMO & provided through BHO	7	CO, CT, IA,[a] KS, NE, NM, PA
Both HMO & BHO cover SA services	4	CA, SC, WA, WV
BHO covers SA services (state does not have HMO)	2	NC, UT
SOURCE: 2008 National Summary of State Medicaid Managed Care Programs. a. Iowa had only one HMO, with low enrollment, which left the state in 2008.		

Following this review and an assessment of data quality, we added seven more states to the predominantly FFS states. With the exception of Alabama, all of these states have some managed care coverage of SA services, as identified here:

- Illinois--Managed care program covered SA services, but a majority of enrollees were not enrolled in the comprehensive managed care plan. Only about 4 percent of enrolled months 12 and older were in the managed care plan.

- Missouri--Managed care program covered SA services, but a majority of enrollees were not enrolled in the comprehensive managed care plan. About one-third of enrolled month 12 and older were in the managed care plan.

- Alabama--Managed care program focused on maternity services and did not include SA treatment services.

- Kentucky--Managed care program covered only medical detoxification services.

- Connecticut--HMOs ceased providing services to Medicaid enrollees from December 2007 through July 2008, so there was no HMO enrollment during this period.

- South Carolina--Managed care program covered SA services, but a majority of enrollees were not enrolled in the comprehensive managed care plan. Almost 20 percent of enrolled months 12 and older were in the managed care plan.

- North Carolina--Pre-paid inpatient MH plan covered inpatient SA services in only five counties in the state.

In Illinois, Missouri, Connecticut, and South Carolina, the months during which an enrollee was covered under a managed care plan were excluded from our analysis. The estimates for Kentucky and North Carolina understated the SA treatment services provided, as the inpatient services provided through the managed care programs are not represented in the FFS claims data included in this analysis.

2. Medicaid Eligibility

To receive federal matching funds, state Medicaid programs must cover basic health services for all individuals in certain mandatory eligibility groups, including low-income children, pregnant women, infants born to Medicaid-eligible women, low-income families with children, SSI enrollees, and low-income Medicare enrollees. States may also elect to cover some optional groups in their Medicaid programs, including medically needy individuals, pregnant women and children with higher income levels, institutionalized individuals, or other groups authorized under waiver programs. Coverage of optional groups of individuals can have a significant impact on SA treatment expenditures. In particular, since children below age 12 have negligible SA treatment expenditures, expansions that shift the Medicaid population toward adults and

groups such as childless adults may result in higher SA treatment expenditures in a given state relative to other states. Table III.3 summarizes coverage of optional groups in the 18 predominantly FFS states.

TABLE III.3. Coverage of Optional Medicaid Groups, 2008				
State	**Parent Expansion**	**Childless Adult Expansion**	**SSI Coverage (Institutionalized)**	**Medically Needy**
Alabama			X	
Arkansas	X[a]		X	X
Connecticut			X	X
Idaho			X	
Illinois				X
Kentucky			X	X
Louisiana			X	X
Mississippi			X	
Missouri				
Montana			X	X
New Hampshire			X	X
North Carolina				X
North Dakota				X
Oklahoma	X	X	X	
South Carolina			X	
South Dakota			X	
Vermont	X	X	X	X
Wyoming			X	

SOURCE: Eligibility Anomaly Tables, MAX 2008.

a. Arkansas did not report whether it had a parent or caretaker expansion in MAX 2008. According to a brief by the Kaiser Family Foundation, the state had a parent expansion through Medicaid as of July 2012. Available at http://www.kff.org/medicaid/upload/7993-02.pdf. Accessed July 29, 2012.

3. Medicaid Service Coverage

Two types of SA treatment services must be covered in all states. Federal Medicaid guidelines require all states to cover medically necessary inpatient detoxification services. Also, all states are federally mandated to provide early and periodic screening, diagnostic, and treatment (EPSDT) services for individuals under 21 years of age. SA treatment needs identified as part of these screenings must be covered in all states. SA treatment services other than these two types of service are an optional category of Medicaid services that states may provide to Medicaid enrollees but are not mandated to provide. Thus, SA treatment coverage varies substantially across states, with some states offering almost no coverage and others offering a range of treatment services.

In November 2010, the National Association of State Alcohol and Drug Abuse Directors (NASADAD) produced a summary of SA services covered in each state, based on the Medicaid state plans and discussions with state Medicaid officials (47 states provided responses).[8] Table III.4 summarizes the findings of this survey for the 18 predominantly FFS states.

[8] National Association of State Alcohol and Drug Abuse Directors. *NASADAD Inquiry--State Medicaid and SCHIP Coverage of Substance Abuse Services*. Washington, DC: NASADAD, November 2010.

TABLE III.4. Substance Abuse Treatment Coverage for Optional Services, by State						
State	Residential Treatment		Intensive Outpatient/ Partial Hospitalization	Methadone Treatment	Case Management	Outpatient Treatment
	Short-Term	Long-Term				
Alabama	No	No	Yes	Yes	No	Yes
Arkansas	No	No	No	No	No	No
Connecticut	Yes (only <21)	N/A	Yes	Yes	Yes	Yes
Idaho	No	No	Yes	No	Yes	Yes
Illinois	Yes	Yes	Yes	Yes	No	Yes
Kentucky	No	No	No	No	Yes	No
Louisiana	No	No	No	No	No	No
Mississippi	No	No	No	No	No	No
Missouri	No	No	Yes	Yes	Yes	Yes
Montana	Yes	Yes	Yes	No	Yes	Yes
New Hampshire	No	No	No	No	No	No
North Carolina	Yes	No	Yes	Yes	Yes	Yes
North Dakota	N/A	N/A	Yes	N/A	N/A	Yes
Oklahoma	Detox Only	No	N/A	No	Yes	Yes
South Carolina	Detox Only	No	Yes	No	Yes	Yes
South Dakota	Yes	No	Yes	No	No	Yes
Vermont	Yes	Yes	Yes	Yes	Yes	Yes
Wyoming	Yes	Yes	Yes	Yes	Yes	Yes

According to this survey, Arkansas, Louisiana, Mississippi, and New Hampshire reported providing no SA treatment services beyond the mandatory coverage categories. Kentucky reported providing only case management services. All of the other states reported providing outpatient treatment. Nine of the states reported providing some residential treatment. Twelve reported providing partial hospitalization or intensive outpatient treatment. Seven reported providing methadone treatment, and ten reported providing case management.

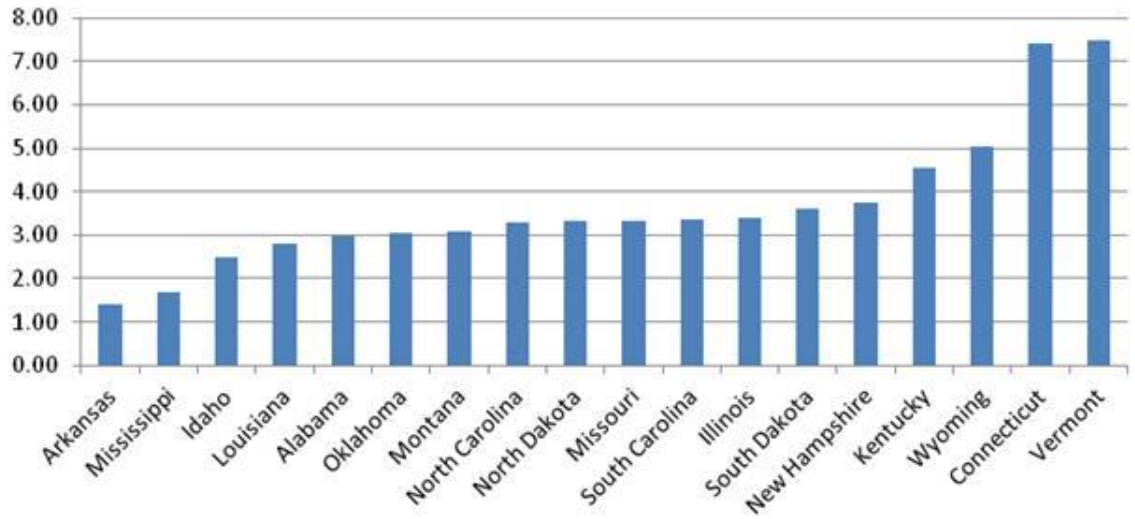
4. Supply of Specialty SA Treatment Coverage

The availability of SA treatment services varied across the 18 predominantly FFS states. We measured this variation in service access based on the number of clients of all insurance types served in specialty SA treatment facilities in 2008 per 1,000 population. The number of clients served was identified in SAMHSA's National Survey of SA Treatment Services (N-SSATS). We divided these client counts by the total number of SA treatment clients in care on March 31, 2008 in all settings by the Census Bureau's estimate of state population.

Figure III.1 displays the number of specialty SA clients per 1000 population in each of the 18 FFS states. Connecticut and Vermont had much higher rates of treatment access relative to the other states. Kentucky and Wyoming also had rates above most states except Connecticut and Vermont. Arkansas and Mississippi had access rates below the average across the other states.

In the next section, we provide estimates of Medicaid SA treatment spending for these 18 states. The variation in these state characteristics should serve as a foundation for understanding these findings.

FIGURE III.1. Specialty SA Treatment Clients per 1,000 Population, by State



B. Medicaid FFS SA Treatment Spending

In this section, we present estimates of FFS SA treatment spending for the 18 states. Sections B.1 through B.3 describe expenditures for core SA treatment services only, using the definition used in the SSE. In Section B.1, we present estimates of these expenditures per enrolled month by state. In Section B.2, we disaggregate the estimates by eligibility and demographic group. In Section B.3, we then analyze the same set of SA treatment expenditures by setting of care. In Section B.4, we broaden the definition of SA treatment to look at categories of care not included in the SSE. Finally, in Section B.5, we analyze SA treatment expenditures as a share of overall Medicaid expenditures in the states.

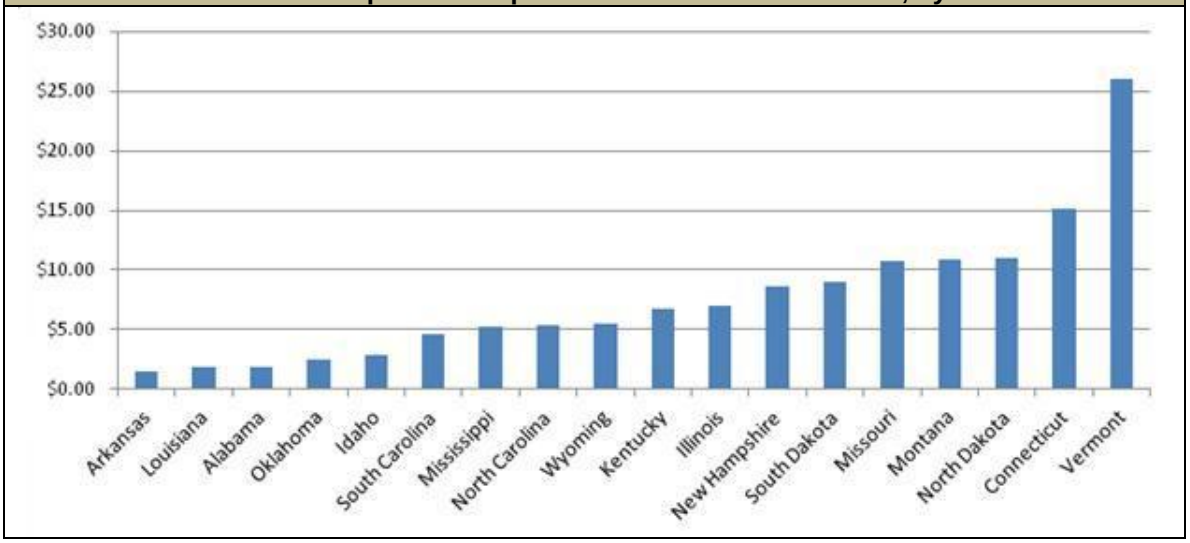
1. Core SA Expenditures per Enrolled Month by State

Figure III.2 displays the overall average SA treatment expenditure per enrolled month among enrollees 12 or older in each of the 18 states. These estimates are developed by dividing the total amount of SA treatment expenditures by the total number of Medicaid enrolled months in the state for individuals 12 or older including enrolled months for both individuals who use SA-related services as well as those who do not use these services. The estimates reflect the variation in Medicaid eligibility, service coverage, and the supply of SA treatment services within the states. They may also reflect rates of treatment need among Medicaid enrollees.

Average expenditures for SA treatment per enrolled month in Vermont (25.98) were substantially higher than the average of 6.16 across the 18 states. Vermont had several Medicaid expansion programs targeting adults, including expansions targeting low-income parents and childless adults. Based on the NASADAD survey, Vermont covered a broad range of SA treatment services and, according to N-SSATS, Vermont's specialty SA treatment system served more clients per 1,000 population (7.5) than any

of the other 18 states. Vermont is also unique in its more extensive use of prescribed drugs. Nineteen percent of Vermont's core SA treatment expenditures were for prescribed drugs in contrast to a 5 percent average across the 18 states. Connecticut had the second highest level of SA treatment expenditures per enrolled month (15.08). In contrast to Vermont, Connecticut provided coverage of SSI and medically needy populations, but did not have parent or childless adult expansions. However, like Vermont, the NASADAD survey indicated that Connecticut provided coverage for a broad range of treatment services and its specialty SA treatment system served a similar number of clients per population (7.4) as that in Vermont (7.5).

FIGURE III.2. Expenditures per Enrolled Month 12 or Older, by State



We estimated that five states (Arkansas, Louisiana, Alabama, Oklahoma, and Idaho) had SA treatment expenditures less than 3.00 per enrolled month. Based on the NASADAD survey Arkansas and Louisiana did not provide any SA services beyond the mandatory coverage categories. However, the NASADAD survey also indicated that Mississippi and New Hampshire did not provide coverage of SA treatment service beyond the mandatory services, but these states had substantially higher levels of treatment expenditures. Similar to Vermont, Oklahoma had a parent and childless adult expansion, but Oklahoma had more limited coverage of SA treatment services.

Table III.5 displays expenditures per enrolled month by state and demographic group. Males tend to have higher expenditure than females and older enrollees tend to have higher expenditures than enrollees 12-20. However, these patterns are not observed in all the states. For example, Illinois, Kentucky, Missouri, North Dakota and South Dakota had higher expenditures per enrolled month among males 12-20 relative to males 21-44. This pattern may result from coverage of SA through EPSDT programs in these states.

TABLE III.5. Core SA Expenditures per Enrolled Month by State							
State	Total	Male			Female		
	12 or Older	12-20	21-44	45 or Older	12-20	21-44	45 or Older
Alabama	1.84	0.76	2.11	6.27	0.55	1.97	1.11
Arkansas	1.44	0.22	2.11	7.19	0.11	1.22	1.24
Connecticut	15.08	5.30	27.47	41.33	3.00	13.40	11.64
Idaho	2.80	0.61	3.49	9.49	0.53	3.91	2.61
Illinois	7.01	10.95	9.15	14.84	3.36	4.76	4.75
Kentucky	6.69	12.70	7.08	8.05	5.77	7.82	1.59
Louisiana	1.80	0.27	4.66	6.36	0.23	2.60	1.31
Mississippi	5.20	3.95	13.17	10.01	1.74	6.59	2.82
Missouri	10.80	23.27	16.68	10.87	10.72	13.12	3.71
Montana	10.93	8.01	7.74	27.65	5.13	12.13	7.29
New Hampshire	8.63	1.37	13.81	16.43	1.48	18.54	5.42
North Carolina	5.34	3.76	9.64	8.84	1.49	8.67	2.86
North Dakota	11.01	13.91	9.36	22.86	18.14	8.60	2.27
Oklahoma	2.49	1.75	3.92	7.22	0.64	3.13	1.70
South Carolina	4.58	6.41	4.91	3.43	3.58	9.00	1.32
South Dakota	9.03	21.95	0.80	0.80	20.27	1.50	0.12
Vermont	25.98	12.86	55.38	14.68	12.20	46.42	8.15
Wyoming	5.49	3.07	10.55	18.43	2.52	5.60	2.63
Mean (18 States)	**6.16**	**6.19**	**10.84**	**11.52**	**2.81**	**7.25**	**3.22**

2. Core SA Expenditures by Demographic and Eligibility Group

In this section, we discuss the distribution of SA treatment expenditures across demographic and eligibility groups. Figure III.3 displays the distribution of SA treatment expenditures across age and gender group. Children less than 12 represented a negligible share of SA treatment spending. Adolescents 12-17 represented 18.1 percent, with males incurring twice the expenditures of females. Working age adults ages 18-64 represented 75.0 percent of SA treatment expenditures, with 38.9 percent of expenditures for females and 36.1 percent for males. Enrollees 65 or older represented 6.7 percent of expenditures, with males having more than double the expenditures of females.

FIGURE III.3. Core SA Expenditures per Enrolled Month by State

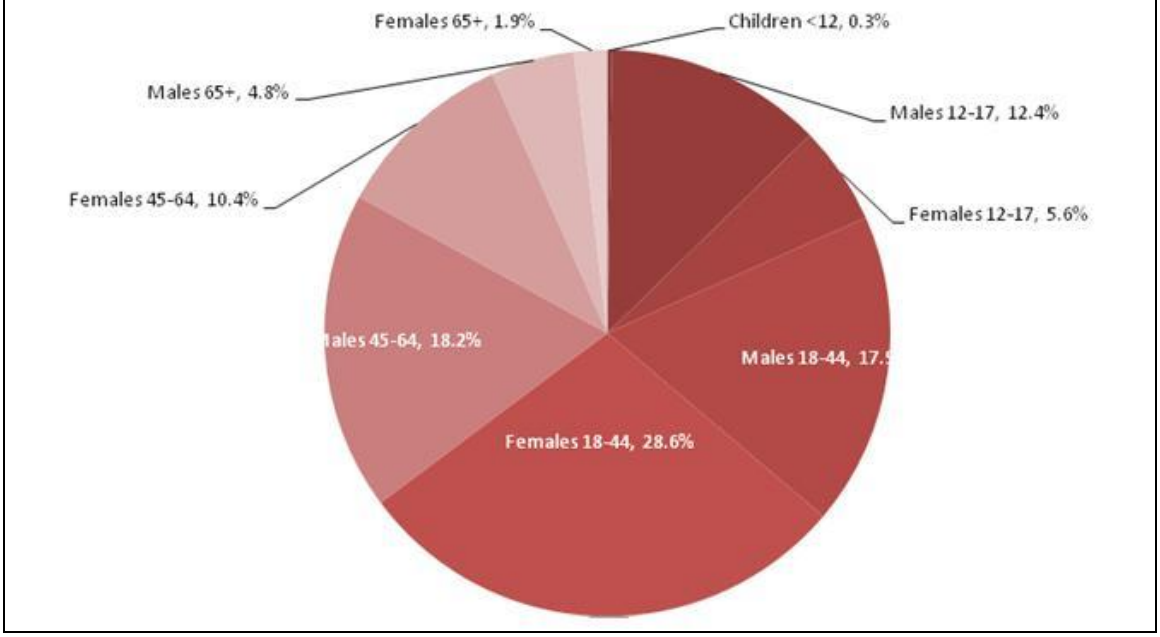


Figure III.4 displays the distribution of expenditures by eligibility group. Children 12-17 represented 18.1 percent of expenditures. Disabled and non-disabled adults have an almost equal share of expenditures (34.1 versus 32.4 percent). Enrollees dually eligible for Medicaid and Medicare represent 15.2 percent of expenditures. The difference in the share of expenditures across age and eligibility groups reflects different rates of Medicaid enrollment among these populations as well as different levels of SA treatment expenditures.

FIGURE III.4. Proportion of Core Medicaid SA Expenditures, FFS States, by Eligibility Groups

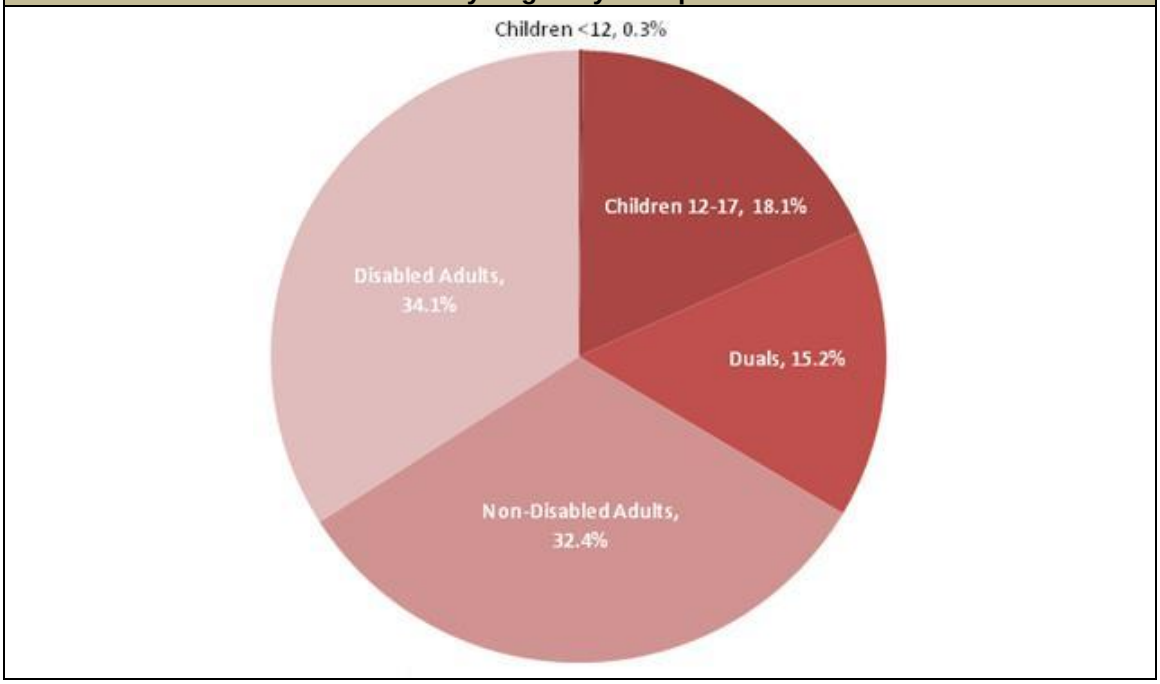


Table III.6 displays average SA treatment expenditures per enrolled month by demographic and eligibility group. Overall non-dual, disabled males age 35-44 (28.47) and 45-64 (26.60) with full Medicaid benefits tended to have the highest levels of expenditures. Females 12-17 (2.75), 18-20 (2.95), and 65 or older (0.96) tended have lower than average expenditures. Also, Medicare dual eligibles (3.27) and non-dual, disabled individuals with partial-benefits (2.71) tended to have lower than average expenditures.

We excluded from this analysis those Medicare dual eligibles who are eligible only for assistance with Medicare premium payments. For the remaining Medicare duals, Medicare is the first payer for SA services and Medicaid is a secondary payer, covering those services included in the state Medicaid benefit package not covered by Medicare. The expenditures represented are only those covered by Medicaid. In 2008, Medicare covered medically necessary inpatient treatment under Part A; however, inpatient stays were subject to deductibles and coinsurance, which would be covered by Medicaid. Under Part B, Medicare has a coinsurance rate of 50 percent for outpatient SA

treatment; under Part D Medicare would have covered prescribed drugs for SA treatment. Given the substantial available coverage for SA under Medicare, Medicaid expenditures for duals are about 53 percent of the level estimated for enrollees who do not have Medicare coverage.

TABLE III.6. Core SA Expenditures per Enrolled Month for FFS States, by Demographic and Eligibility Group, Enrollees 12 or Older

	All Groups 12 or Older	Non-Dual, Non-Disabled		Non-Dual, Disabled		Medicare Dual Eligibles
		Full-Benefit	Partial-Benefit	Full-Benefit	Partial-Benefit	
Female						
12-17	2.75	2.69	3.59	2.07	1.64	NA
18-20	2.95	2.93	2.93	3.21	2.18	7.66
21-34	6.55	6.71	5.39	8.43	2.56	4.24
35-44	8.71	8.30	3.98	16.40	4.47	4.08
45-64	5.64	6.48	4.23	8.89	3.03	2.40
65 or Older	0.96	1.56	1.74	4.22	0.12	0.91
Male						
12-17	5.87	5.93	7.70	3.96	0.78	NA
18-20	7.46	7.58	13.84	4.61	2.45	5.36
21-34	9.09	10.77	23.31	9.43	2.18	4.43
35-44	12.88	9.16	10.60	28.47	4.02	5.37
45-64	14.49	6.47	7.22	26.60	5.64	6.38
65 or Older	6.46	4.42	4.33	12.43	0.03	6.58
Mean (12 or Older)	**6.16**	**5.58**	**6.34**	**13.36**	**2.71**	**3.27**

3. Distribution of Core SA Spending in FFS States by Service Type

Table III.7 reports the distribution of SA treatment spending by service type. Across the 18 states, 35.2 percent of expenditures were for inpatient hospital care, 51.9 percent was for outpatient care, 5.4 percent was for prescribed drugs, and the remaining 7.5 percent was for residential treatment. The expenditures for inpatient care may be somewhat understated for Kentucky and North Carolina, as Kentucky provided some medical detoxification services through a managed care plan and North Carolina had a pre-paid inpatient behavioral health plan in five counties.

The distribution of expenditures by service type varied substantially across the states. As noted in Section III.A.3, Alabama, Arkansas, Idaho, Kentucky, Louisiana, Mississippi, Missouri, and New Hampshire reported no coverage of residential SA treatment services under Medicaid. However, in Kentucky and Missouri, we identified some services that appear to be residential. These services are related to residential behavioral health and therapeutic foster care procedure codes. Vermont and South Dakota had the lowest share of inpatient expenditures (7.5 percent and 8.5 percent, respectively). Louisiana and Mississippi had the highest percentage of expenditures for inpatient care (80.7 percent and 75.6 percent, respectively). Prescribed drugs represented 19.2 percent of expenditures in Vermont, but represented 1 percent of expenditures in Louisiana and only 0.3 percent of expenditures in South Dakota. In North Carolina, New Hampshire, Missouri, and Connecticut, we found the highest share of expenditures devoted to outpatient care.

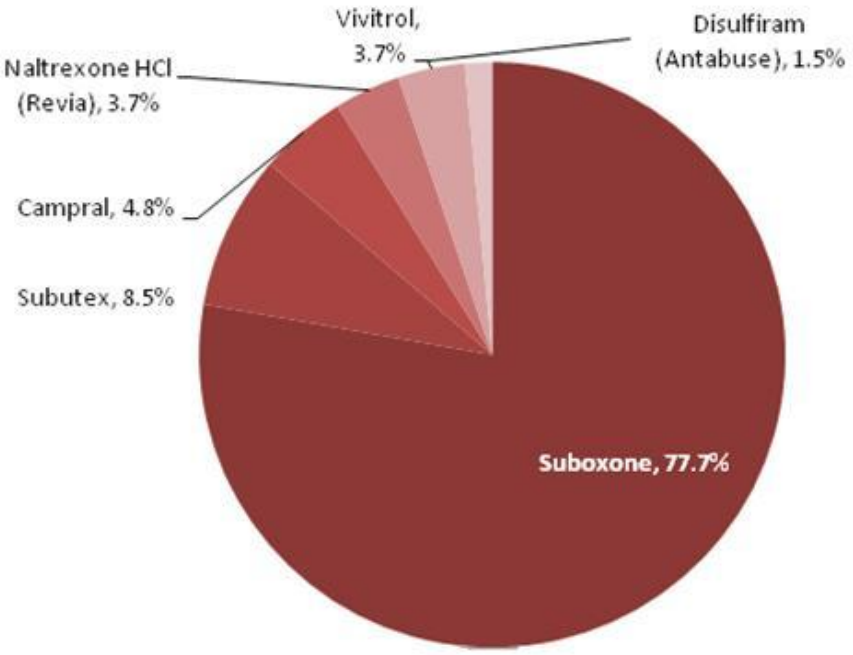
TABLE III.7. Distribution of SA Treatment Spending, by Service Type					
State	**Total**	**Inpatient Hospital**	**Prescribed Drug**	**Residential Treatment**	**Outpatient Treatment**
Expenditures					
Alabama	8,309,625	4,733,159	686,260	0	2,890,206
Arkansas	4,960,347	3,305,162	165,897	0	1,489,288
Connecticut	53,443,687	14,235,623	2,276,104	3,580,303	33,351,657
Idaho	2,932,153	1,986,565	299,094	0	646,494
Illinois	107,452,301	46,765,187	2,907,050	1,207,071	56,572,993
Kentucky	35,384,118	14,140,912	3,907,976	1,641,780	15,693,450
Louisiana	11,681,116	9,431,405	120,271	0	2,129,440
Mississippi	20,132,385	15,226,817	753,521	0	4,152,047
Missouri	44,278,809	11,226,183	814,275	3,402,850	28,835,501
Montana	6,136,976	2,817,123	500,181	586,973	2,232,699
New Hampshire	7,066,142	1,655,401	686,548	0	4,724,193
North Carolina	47,771,308	8,554,328	1,970,798	2,637,339	34,608,843
North Dakota	4,280,975	1,197,730	104,204	606,873	2,372,168
Oklahoma	9,106,567	4,144,240	484,876	633,306	3,844,145
South Carolina	17,922,728	4,340,306	1,035,698	5,890,367	6,656,357
South Dakota	5,965,250	509,392	16,879	4,350,769	1,088,210
Vermont	30,132,534	2,262,989	5,781,915	6,914,864	15,172,766
Wyoming	1,980,713	851,723	103,398	3,640	1,021,952
Total (18 states)	**418,937,734**	**147,384,245**	**22,614,945**	**31,456,135**	**217,482,409**
Percentage of SA Treatment Expenditures					
Alabama	100.0	57.0	8.3	0.0	34.8
Arkansas	100.0	66.6	3.3	0.0	30.0
Connecticut	100.0	26.6	4.3	6.7	62.4
Idaho	100.0	67.8	10.2	0.0	22.0
Illinois	100.0	43.5	2.7	1.1	52.6
Kentucky	100.0	40.0	11.0	4.6	44.4
Louisiana	100.0	80.7	1.0	0.0	18.2
Mississippi	100.0	75.6	3.7	0.0	20.6
Missouri	100.0	25.4	1.8	7.7	65.1
Montana	100.0	45.9	8.2	9.6	36.4
New Hampshire	100.0	23.4	9.7	0.0	66.9
North Carolina	100.0	17.9	4.1	5.5	72.4
North Dakota	100.0	28.0	2.4	14.2	55.4
Oklahoma	100.0	45.5	5.3	7.0	42.2
South Carolina	100.0	24.2	5.8	32.9	37.1
South Dakota	100.0	8.5	0.3	72.9	18.2
Vermont	100.0	7.5	19.2	22.9	50.4
Wyoming	100.0	43.0	5.2	0.2	51.6
Overall (18 states)	**100.0**	**35.2**	**5.4**	**7.5**	**51.9**

Table III.8 below identifies the number of individuals who used core SA treatment services according to each service type. Most SA treatment users received some outpatient care (89.9 percent) and 16.6 percent of users needed inpatient services. SA treatment users were much less likely to receive treatment in the form of prescribed drugs or residential services--only 9.8 percent and 4.3 percent, respectively. Vermont had a much higher rate of prescribed drug use (29.7 percent) and residential treatment use (16.9 percent) relative to the other states and also had a much lower rate of inpatient care use (6.3 percent).

TABLE III.8. Distribution of SA Treatment Users, by Type of Service					
State	**Total**	**Inpatient Hospital**	**Prescribed Drug**	**Residential Treatment**	**Outpatient Treatment**
Number of Users					
Alabama	8,493	1,681	516	0	7,294
Arkansas	3,537	857	192	0	2,928
Connecticut	17,284	1,438	1,964	1,392	15,891
Idaho	1,841	293	323	0	1,559
Illinois	32,963	6,185	2,941	1,376	30,202
Kentucky	12,694	3,510	2,166	81	10,599
Louisiana	7,540	2,338	316	0	6,025
Mississippi	8,388	2,732	616	0	6,990
Missouri	17,163	2,486	1,431	1,241	15,729
Montana	2,692	399	315	86	2,502
New Hampshire	3,339	337	424	0	3,104
North Carolina	25,507	2,708	1,709	316	23,824
North Dakota	1,736	359	97	13	1,644
Oklahoma	6,366	997	553	63	5,578
South Carolina	9,995	1,177	566	793	9,300
South Dakota	1,398	97	50	482	1,117
Vermont	8,375	528	2,487	1,417	7,964
Wyoming	1,271	159	119	0	1,183
Total (18 states)	**170,582**	**28,281**	**16,785**	**7,260**	**153,433**
Percentage of All SA Treatment Users					
Alabama	100.0	19.8	6.1	0.0	85.9
Arkansas	100.0	24.2	5.4	0.0	82.8
Connecticut	100.0	8.3	11.4	8.1	91.9
Idaho	100.0	15.9	17.5	0.0	84.7
Illinois	100.0	18.8	8.9	4.2	91.6
Kentucky	100.0	27.7	17.1	0.6	83.5
Louisiana	100.0	31.0	4.2	0.0	79.9
Mississippi	100.0	32.6	7.3	0.0	83.3
Missouri	100.0	14.5	8.3	7.2	91.6
Montana	100.0	14.8	11.7	3.2	92.9
New Hampshire	100.0	10.1	12.7	0.0	93.0
North Carolina	100.0	10.6	6.7	1.2	93.4
North Dakota	100.0	20.7	5.6	0.7	94.7
Oklahoma	100.0	15.7	8.7	1.0	87.6
South Carolina	100.0	11.8	5.7	7.9	93.0
South Dakota	100.0	6.9	3.6	34.5	79.9
Vermont	100.0	6.3	29.7	16.9	95.1
Wyoming	100.0	12.5	9.4	0.0	93.1
Overall (18 states)	**100.0**	**16.6**	**9.8**	**4.3**	**89.9**

Figure III.5 displays the distribution of prescribed drug expenditures in the 18 FFS states. About three-quarters of expenditures (77.7 percent) were for Suboxone. Suboxone contains a combination of buprenorphine and naloxone. This drug is used to treat opiate addiction. The next highest share of expenditures is for Subutex with 8.5 percent. This is buprenorphine only and is used to treat narcotic addition. The third highest share of expenditures is for Campral at 4.8 percent. Campral is used to treat alcohol addiction. The share of prescribed drug users represented by Suboxone (57.6 percent) is lower than its share of expenditures. Campral has the next highest share of users (18.5 percent) followed by Naltrexone HCl (Revia) with 15.0 percent. Naltrexone HCl is used to treat narcotic or alcohol addiction.

FIGURE III.5. Distribution of Prescribed Drug Expenditures



4. Non-Core SA Treatment Spending

Our analysis in the previous sections focused on expenditures meeting the definition of SA treatment used in SAMHSA SA treatment spending estimates. In this section, we broaden that definition and look at other services that are SA related. Table III.9 displays these additional services in five categories. The first and second are expenditures related to fetal exposure to alcohol or drugs and poisoning from alcohol or drugs. Together, spending on these two categories is about 0.11 dollars per Medicaid enrolled month 12 or older. Other conditions fully attributable to alcohol include conditions such as alcoholic polyneuropathy and polyneuropathy due to drugs. This category also includes acute alcoholic hepatitis and alcoholic cardiomyopathy, gastritis, fatty liver, cirrhosis of the liver, and liver damage. These conditions on average add 0.64 dollars in expenditures per Medicaid enrolled month. The expenditures for fetal exposure, poisoning, and these other conditions are fully attributable to alcohol and drug use.

The expenditures reported in the final two columns of Table III.9 are related only partially to alcohol and drug use, as they are drawn from claims in which a primary diagnosis unrelated to alcohol or drugs was identified. Individuals with SA disorders may be co-morbidly diagnosed, and SA treatment programs increasingly treat both SA and MH diagnoses in tandem. In some states, it appears that reporting of a secondary SA diagnosis is more or less common. For example, expenditures for services with a primary MH diagnosis and a co-morbid SA diagnosis range from only 0.32 and 13.41 per enrolled month in Alabama and Wyoming, respectively. Differences in expenditures may be related to service coding, Medicaid program coverage, or differences in the treatment system across states. On average, 4.07 and 7.50 per enrolled month,

respectively were spent on services with a non-MH primary diagnosis and a secondary SA diagnosis. The primary medical diagnoses included on the claims represented in this category often were medical diagnoses partially attributable to drug or alcohol use these included births with SA treatment, HIV, acute pancreatitis, pneumonia, and heptatic coma related to liver disease.

TABLE III.9. Expenditures on Non-Core SA Treatment Services, per Enrolled Month 12 or Older

State	Fetus	Poisoning	Other Conditions	MH Expenditures with Secondary SA Diagnosis	Non-MH Expenditures with Secondary SA Diagnosis
Alabama	0.01	0.09	0.08	0.32	1.94
Arkansas	0.01	0.01	0.29	3.20	0.72
Connecticut	0.02	0.02	0.60	10.73	8.77
Idaho	0.03	0.03	0.70	3.54	7.68
Illinois	0.01	0.01	0.97	4.65	9.65
Kentucky	0.02	0.89	0.15	2.45	11.57
Louisiana	0.04	0.01	0.53	2.18	3.98
Mississippi	0.01	0.01	0.37	5.71	5.53
Missouri	0.00	0.04	0.89	6.68	4.02
Montana	0.06	0.04	1.68	6.31	11.01
New Hampshire	0.32	0.03	0.54	2.36	6.10
North Carolina	0.04	0.02	0.74	3.59	9.20
North Dakota	0.02	0.02	0.85	8.10	13.22
Oklahoma	0.02	0.02	0.78	4.28	8.23
South Carolina	0.01	0.01	0.61	1.37	11.09
South Dakota	0.03	0.02	1.04	4.72	6.87
Vermont	0.05	0.02	0.25	4.62	5.32
Wyoming	0.02	0.01	1.07	13.41	11.55
Total (18 states)	**0.02**	**0.09**	**0.64**	**4.07**	**7.50**

5. SA Treatment Spending as a Share of Overall Medicaid Spending

Table III.10 displays SA treatment expenditures as a share of overall Medicaid spending. Across all 18 states, core SA treatment expenditures accounted for 0.7 percent of Medicaid expenditures. If expenditures for fetal exposure, poisoning, and other medical conditions that are fully attributable to alcohol are added to the core SA treatment expenditures then this percentage increases slightly to 0.8 percent of Medicaid spending. SA spending as a share of overall Medicaid spending varies by state. Arkansas and Louisiana have the lowest share of Medicaid spending related to core SA services (0.1 percent and 0.2 percent, respectively). In Vermont core SA treatment spending represents 3.3 percent of overall Medicaid spending.

TABLE III.10. SA Treatment Expenditures as a Share of Overall Medicaid Spending					
State	Expenditures			Percent of Overall Medicaid FFS Expenditures	
	Total Medicaid FFS	Core SA Treatment	All Expenditures Fully Attributable to SA	Core SA Treatment	All Expenditures Fully Attributable to SA
Alabama	2,913,310,791	8,309,625	9,259,048	0.3	0.3
Arkansas	3,310,688,627	4,960,347	6,253,410	0.1	0.2
Connecticut	3,834,253,096	53,443,687	56,038,805	1.4	1.5
Idaho	1,230,169,201	2,932,153	3,812,654	0.2	0.3
Illinois	9,735,069,107	107,452,301	123,442,978	1.1	1.3
Kentucky	4,378,024,181	35,384,118	41,758,756	0.8	1.0
Louisiana	5,079,957,979	11,681,116	15,620,670	0.2	0.3
Mississippi	3,096,430,669	20,132,385	21,883,456	0.7	0.7
Missouri	4,282,354,451	44,278,809	48,188,389	1.0	1.1
Montana	657,488,444	6,136,976	7,176,917	0.9	1.1
New Hampshire	947,443,772	7,066,142	8,141,948	0.7	0.9
North Carolina	8,883,249,639	47,771,308	55,216,792	0.5	0.6
North Dakota	551,744,708	4,280,975	4,628,033	0.8	0.8
Oklahoma	3,279,858,237	9,106,567	12,120,378	0.3	0.4
South Carolina	3,208,396,386	17,922,728	20,532,386	0.6	0.6
South Dakota	668,219,313	5,965,250	6,714,524	0.9	1.0
Vermont	914,114,015	30,132,534	30,663,997	3.3	3.4
Wyoming	518,587,977	1,980,713	2,379,600	0.4	0.5
Total (18 states)	**57,489,360,593**	**418,937,734**	**473,832,741**	**0.7**	**0.8**

C. Medicaid Enrollees in FFS States with an SA Diagnosis

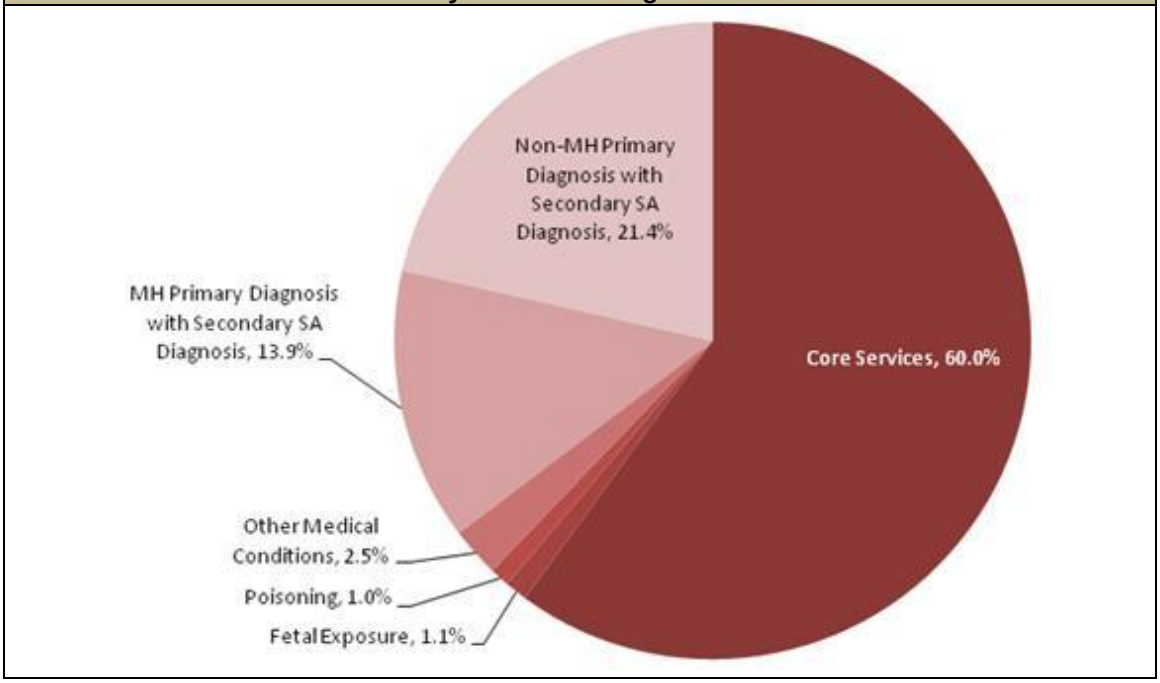
In this section, we describe the characteristics of Medicaid enrollees identified with a diagnosis of an SA disorder or SA-related diagnosis on a FFS Medicaid claim in CY 2008 in the 18 predominantly FFS states. In Section III.C.1, we describe the source of identification of these enrollees. In Section III.C.2, we discuss the distribution of treatment users by demographic and eligibility group. In Section III.C.3, we describe whether treatment was received for alcohol only, drug use only, or both, and whether treatment was received for an MH diagnosis. In Section III.C.4, we present statistics on ER and inpatient hospital use among SA treatment users. Finally, in Section III.C.5, we compare expenditures among SA treatment users and other Medicaid enrollees.

The analyses in this section used only the FFS claims data. For individuals who were enrolled in FFS Medicaid for part of the year and in a managed care plan for part of the year, we retained the FFS months and expenditures in this analysis. We assessed the impact of excluding these individuals and found it had a minor impact on the results, because the majority of enrollees in these 18 states have only FFS Medicaid. The most significant impact of this exclusion would have been on Connecticut where there was no managed care enrollment in the first half of the year, but where many Medicaid enrollees participated in managed care late in the year. We believe inclusion of the FFS experience of these enrollees provides an analysis population more representative of the full Medicaid population in Connecticut.

1. Source of Identification

Figure III.6 shows the distribution of Medicaid enrollees with a SA diagnosis by source of identification. For individuals who had claims with more than one source, a hierarchy was used to assign one source in the following order: core, fetal exposure, poisoning, other medical conditions, MH primary with secondary SA diagnosis and non-MH with secondary SA diagnosis. The majority of Medicaid enrollees with a SA diagnosis (60.0 percent) were identified base a primary diagnosis of core SA treatment. Few enrollees were identified based on fetal exposure, poisoning, or another medical condition fully attributable to SA (1.1 percent, 1.0 percent and 2.5 percent, respectively). The remainder were identified based on a secondary diagnosis with 13.9 percent having a primary MH diagnosis and secondary SA diagnosis and 21.4 percent having a primary non-MH diagnosis and a secondary SA diagnosis.

FIGURE III.6. Distribution of Medicaid Enrollees in FFS States with an SA Diagnosis, by Source of Diagnosis



2. Demographic and Eligibility Characteristics

Figure III.7 displays the distribution of Medicaid enrollees with a SA treatment diagnosis by demographic group. Children less than 12 account for 3.8 percent of Medicaid enrollees with a SA treatment diagnosis. Individuals over 65 also represent a small share of enrollees with a SA diagnosis (4.5 percent). Adolescents 12-17 account for almost 10 percent of enrollees with a SA treatment diagnosis. Thus, the vast majority of enrollees with a SA diagnosis (81.7 percent) are working age adults 18-64. Females 18-44 (31.7 percent) represent more than double the share of females 45-64 (13.4 percent). In contrast, males 18-44 (18.6 percent) represent a similar share of enrollees with SA diagnosis as males 45-64 (18.0 percent).

FIGURE III.7. Distribution of Medicaid Enrollees in FFS States with an SA Diagnosis by Demographic Group

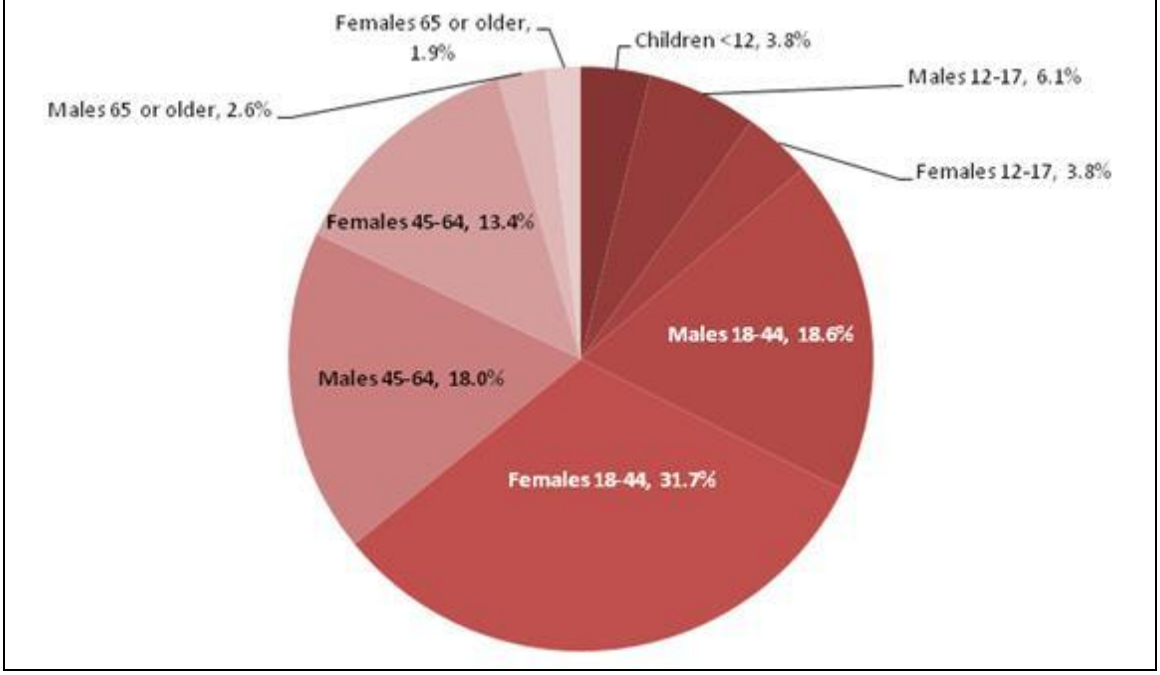


Table III.11 presents the number Medicaid enrollees with a SA diagnosis per 1,000 FFS enrolled months by eligibility and demographic group. In general non-disabled individuals tended to have a lower rate of SA diagnosis than disabled individuals in the same demographic group. Among males, partial-benefit enrollees tended to have higher rates of SA diagnosis, however, among females they had lower rates of diagnosis. By age group, the highest rates of diagnosis are among enrollees 18-44 with one exception. Males with a disability age 45-64 had higher diagnosis rates than their counterparts 18-44.

TABLE III.11. Number of Enrollees in FFS States with an SA Diagnosis per 1,000 Enrolled Months, by Demographic and Eligibility Group, Enrollees 12 or Older

	Total FFS Enrolled Months	Non-Dual, Non-Disabled		Non-Dual, Disabled		Medicare Dual Eligibles
		Full-Benefit	Partial-Benefit	Full-Benefit	Partial-Benefit	
Female						
12-17	8,524,660	1.33	1.03	1.82	0.77	NA
18-20	3,313,437	2.86	1.96	4.00	1.95	3.85
21-34	10,162,599	5.10	3.12	7.49	2.66	5.40
35-44	4,916,023	5.45	3.17	10.90	6.23	5.40
45-64	7,691,548	4.51	3.10	7.09	4.91	3.45
65 or Older	8,247,056	0.81	0.90	1.95	2.04	0.67
Male						
12-17	8,810,212	2.07	1.53	2.31	1.07	NA
18-20	2,198,807	4.09	3.87	4.45	1.97	3.95
21-34	2,902,699	7.89	8.96	9.12	2.71	6.53
35-44	2,475,379	6.74	7.17	14.81	8.25	7.41
45-64	5,258,261	5.41	5.60	15.24	12.73	6.51
65 or Older	3,083,516	2.24	2.95	6.54	8.39	2.44
Total (18 States)	**67,584,197**	**1.34**	**1.14**	**2.17**	**1.15**	**2.44**

Table III.12 shows the percentage of enrollees ages 12 or older with an SA diagnosis by the type of treatment received in the 18 predominantly FFS states by state. The enrollees are identified as having only alcohol-related claims, only drug-related claims, or both alcohol and drug-related claims. They also are identified (separately) as being treated for an MH condition.

TABLE III.12. Proportion of Enrollees with SA Diagnosis, by Type of Treatment Received, by State

State	Count of Enrollees	Percentage of Enrollees			
		Alcohol Only	Drug Only	Alcohol & Drug	MH Condition Treated
Alabama	13,709	31.0	60.4	8.6	53.7
Arkansas	7,784	34.4	58.9	6.7	70.5
Connecticut	23,445	24.7	57.5	17.8	61.6
Idaho	3,871	40.1	47.2	12.7	74.0
Illinois	51,502	31.7	52.5	15.8	57.5
Kentucky	21,915	24.0	65.0	11.0	69.6
Louisiana	17,386	30.6	57.0	12.4	60.3
Mississippi	14,051	34.7	49.3	16.0	67.8
Missouri	25,752	32.2	54.4	13.4	65.8
Montana	4,502	47.8	36.4	15.8	66.1
New Hampshire	4,643	28.5	62.3	9.2	69.7
North Carolina	45,941	28.5	56.6	14.9	65.2
North Dakota	2,725	45.1	28.0	26.9	71.9
Oklahoma	14,438	28.1	59.0	12.9	69.0
South Carolina	15,936	31.2	56.7	12.1	55.1
South Dakota	2,769	43.9	25.3	30.8	63.6
Vermont	9,242	29.6	53.3	17.1	58.6
Wyoming	1,911	46.3	41.8	12.0	61.7
Total (18 states)	**281,522**	**30.6**	**55.3**	**14.2**	**63.0**

Overall, 54.3 percent of the individuals identified with an SA diagnosis had only drug-related claims, 30.6 percent had only alcohol-related claims, and 14.2 percent had both types of claims. The percentage of enrollees by each type of treatment varied by state, but the percentage with only drug-related claims was near or above 50 percent, and higher than the percentages falling into the other two treatment categories, in 14 of the 18 states. Montana, Wyoming, and North and South Dakota had the highest share of enrollees with an SA diagnosis who received only treatment for alcohol-related conditions.

Overall, among the enrollees with an SA diagnosis, 63.0 percent had an MH-related claim. The percentage of enrollees with an SA diagnosis who also had an MH diagnosis ranged from 53.7 percent in Alabama to 74.0 percent in Idaho.

3. Type of Treatment Received

Table III.13 shows the percentage of enrollees ages 12 or older with an SA diagnosis by the type of treatment received by demographic group. Type of treatment was identified based on claim diagnosis codes in the first or later field. The diagnoses

used to assign claims to alcohol, drugs, and MH are listed in Appendix B Table B.1, Table B.2 and Table B.3, respectively.

TABLE III.13. Proportion of Enrollees with SA Diagnosis, by Type of Treatment Received, by Demographic Group					
Demographic Group	Count of Enrollees	Percentage of Enrollees			
		Alcohol Only	Drug Only	Alcohol & Drug	MH Condition Treated
Medicare Duals					
12-64	48,084	36.1	50.4	13.5	71.2
65 or Older	12,154	63.1	33.5	3.4	44.5
Non-Disabled, Non-Dual					
12-20	41,622	16.7	69.9	13.5	63.7
21-44	69,904	20.3	68.3	11.4	57.1
45 or Older	9,050	43.0	44.7	12.4	47.6
Disabled, Non-Dual					
12-20	5,556	15.9	71.2	13.0	81.7
21-44	38,513	24.8	54.5	20.8	75.9
45 or Older	56,639	45.1	38.0	17.0	58.4
Total (18 states)	**281,522**	**30.6**	**55.3**	**14.2**	**63.0**

Younger enrollees were more likely to receive treatment for drug use or abuse, while older enrollees were more likely to receive treatment for alcohol use or abuse. Relative to the other demographic groups, enrollees in the aged dual group had a much higher percentage (63.1 percent) of enrollees with only alcohol-related claims relative to the other groups and correspondingly lower percentages of enrollees with drug only (33.5 percent) and alcohol and drug-related claims (3.4 percent). In contrast, the disabled and non-disabled, non-dual groups ages 12-20 had the highest percentages (71.2 percent and 69.9 percent, respectively) of enrollees with only drug-related claims and the lowest percentage (15.9 percent and 16.7 percent, respectively) with only alcohol-related claims across all of the demographic groups. Not surprisingly, individuals with a disability, including Medicare dual eligibles ages 12-64 and non-duals with a disability, were more likely to have been treated for an MH condition relative to the average across all demographic groups.

4. Use of ER and Inpatient Hospital Services

Table III.14 shows the percentage of enrollees ages 12 or older with an SA diagnosis who used an ER or inpatient hospital. It also shows their expenditures for ER and inpatient hospital services per enrolled month. ER services were identified on IP and OT file records based on listing of a procedure code of 99281-99292 or a revenue center code of 450-459 or 981 on any claim. The place of service code equal ER was also used on OT service file claims.

Overall, 21.4 percent and 62.4 percent of enrollees with an SA diagnosis used the ER with an SA-related or any diagnosis, respectively. Vermont and South Dakota had the lowest share of ER visits with a SA-related diagnosis (13.0 percent and 14.8 percent, respectively). Alabama, Arkansas, and Kentucky had the highest share of enrollees with a SA-related ER visit (about 26 percent). When ER claims with any diagnosis are considered, Vermont (55.4 percent) and South Dakota (52.7 percent) still

have among the lowest shares, but Connecticut has the lowest share with 48.9 percent. The share of enrollees with a SA diagnosis using the ER was highest Arkansas with 87.1 percent.

TABLE III.14. Proportion of Enrollees with SA Diagnosis Using ER and Inpatient Hospital, by State

State	Count of Enrollees	Percentage Using			Expenditures per Enrolled Month (in $)		
		ER with SA Diagnosis	ER with any Diagnosis	Inpatient Hospital	ER with SA Diagnosis	ER with any Diagnosis	Inpatient Hospital
Alabama	13,709	26.1	66.0	25.3	2.18	25.71	104.77
Arkansas	7,784	26.4	87.1	17.4	7.36	46.29	148.98
Connecticut	23,445	18.9	48.9	26.8	3.65	26.94	375.77
Idaho	3,871	20.1	57.0	38.9	2.32	22.92	396.21
Illinois	51,502	20.4	58.9	41.9	3.61	23.13	575.71
Kentucky	21,915	26.7	65.3	34.4	4.96	51.86	452.35
Louisiana	17,386	23.1	68.2	42.7	4.65	42.22	351.26
Mississippi	14,051	22.0	65.3	42.6	2.28	26.23	456.17
Missouri	25,752	19.8	59.6	28.2	8.52	74.95	293.31
Montana	4,502	22.3	60.4	35.1	2.47	20.47	311.45
New Hampshire	4,643	22.4	64.7	30.0	6.82	64.15	220.57
North Carolina	45,941	22.6	69.2	29.5	4.57	56.75	292.06
North Dakota	2,725	17.3	55.9	27.6	3.66	37.23	325.40
Oklahoma	14,438	19.9	63.6	43.1	2.14	37.06	450.61
South Carolina	15,936	18.1	58.2	33.9	4.47	52.82	475.39
South Dakota	2,769	14.8	52.7	33.0	1.55	31.51	334.89
Vermont	9,242	13.0	55.4	17.8	3.25	29.42	167.26
Wyoming	1,911	22.0	58.6	36.5	4.50	47.31	622.74
Total (18 states)	**281,522**	**21.4**	**62.4**	**33.6**	**4.26**	**40.94**	**381.73**

NOTES:
Both full and partial-benefit enrollees are included in this table.
All claims marked as ER services on the IP file are not included in the calculations of ER expenditures per enrolled month because these expenditures already are already included in the Inpatient hospital expenditures; ER service claims identified in the IP file make up 3.9% of total ER claims.

Turning to inpatient services, on average, 33.6 percent of enrollees with an SA diagnosis had a SA-related inpatient hospital stay. In Arkansas and Vermont only 17-18 percent of enrollees with an SA diagnosis used inpatient hospital services. In Illinois, Louisiana, Mississippi, and Oklahoma, more than 40 percent of enrollees with an SA diagnosis used inpatient care.

On average per enrolled month enrollees with a SA diagnosis used 4.26, 40.94 and 381.73 dollars in SA-related ER services, all ER services, and SA-related inpatient hospital services, respectively. ER expenditures per enrolled month for any type of diagnosis varied substantially across states: Montana had the lowest expenditures (20.47), and New Hampshire had the highest (64.15). SA treatment-related inpatient hospital expenditures per enrolled month were much higher than ER expenditures but also varied substantially across states: Alabama had the lowest expenditures (104.77), while Wyoming had the highest (622.74).

Table III.15 shows the percentage of enrollees with an SA diagnosis who used the ER or inpatient hospital by demographic group. Non-disabled enrollees 12-20 had a lower rate of both SA-related (16.8 percent) and any ER (51.0 percent) and inpatient hospital use (21.1 percent) relative to the average across all demographic groups. Aged duals and disabled, non-duals 45 or older had a higher rate of inpatient hospital use

(45.3 percent and 47.6 percent) relative to the average across all demographic groups. In terms of expenditures Medicare duals had the lowest level of ER expenditures. Individuals with disability 21 and older had the highest ER expenditures and the highest inpatient hospital expenditures. The lowest inpatient hospital expenditures were for duals 12-64.

TABLE III.15. Proportion of Enrollees with SA Diagnosis Using ER and Inpatient Hospital, by Demographic Group

State	Count of Enrollees	Percentage Using			Expenditures per Enrolled Month (in $)		
		ER with SA Diagnosis	ER with any Diagnosis	Inpatient Hospital	ER with SA Diagnosis	ER with any Diagnosis	Inpatient Hospital
Medicare Duals							
12-64	48,084	22.0	66.5	28.0	1.70	15.56	125.25
65 or Older	12,154	13.1	52.7	45.3	0.67	6.71	440.48
Non-Disabled, Non-Dual							
12-20	41,622	16.8	51.0	21.1	2.62	22.10	261.04
21-44	69,904	17.2	58.5	27.1	3.37	42.88	183.78
45 or Older	9,050	18.3	54.8	33.1	3.88	31.52	358.17
Disabled, Non-Dual							
12-20	5,556	22.6	61.9	30.9	3.66	38.35	426.00
21-44	38,513	30.3	73.3	42.1	7.59	75.58	591.86
45 or Older	56,639	25.4	68.2	47.6	7.21	59.55	742.44
Total (18 states)	**281,522**	**21.4**	**62.4**	**33.6**	**4.26**	**40.94**	**381.73**

Across all enrollees in the 18 FFS states represented in Table III.15, the three diagnoses with the highest total expenditures among ER claims were for alcoholic cirrhosis of the liver; schizoaffective disorder, unspecified; and acute pancreatitis. Taken together, these diagnoses represented 6.8 percent of total spending on ER visits for SA-related services. These were also the top three diagnoses for men (representing 7.9 percent of expenditures), while depressive disorder, not elsewhere classified, replaced acute pancreatitis for women (representing 6.0 percent of expenditures).

When disabled and non-disabled non-duals in the 18 FFS states were examined separately, the top three diagnoses by expenditure amount for non-dual disabled enrollees were alcoholic cirrhosis of the liver; unspecified schizoaffective disorder; and acute pancreatitis, which made up 7.8 percent of spending on ER services by this group. The top three diagnoses for non-dual, non-disabled enrollees were depressive disorder, not elsewhere classified; acute pancreatitis; and major depressive affective disorder, recurrent episode, severe, without mention of psychotic behavior, which made up 7.1 percent of spending by this group of enrollees on ER visits for SA-related services.

When examined separately for each of the 18 FFS states, alcoholic cirrhosis of the liver was among the top three codes in eight of the 18 states; acute pancreatitis was among the top three codes in six of the states; and unspecified schizoaffective disorder was among the top three codes in five of the states.

Across all enrollees in the 18 FFS states represented in Table III.15, the top three diagnoses representing inpatient hospital claims were for unspecified schizoaffective disorder; drug withdrawal; and alcoholic cirrhosis of the liver. Taken together, these

diagnoses represented 9.6 percent of total spending on inpatient hospital stays for SA-related services. These were also the top three diagnoses for men (representing 10.2 percent of expenditures), while unspecified bipolar disorder replaced alcoholic cirrhosis of the liver for women (representing 9.5 percent of expenditures).

When examined separately for non-dual disabled versus non-disabled for each of the 18 FFS states, the top three diagnoses by expenditure amount for non-dual disabled enrollees were unspecified schizoaffective disorder; drug withdrawal; and alcoholic cirrhosis of the liver, which made up 11.8 percent of spending by this group of enrollees on inpatient hospital stays for SA-related services. The top three diagnoses for non-dual non-disabled enrollees were unspecified episodic mood disorder; unspecified bipolar disorder; and depressive disorder, not elsewhere classified, which made up 13.3 percent of spending by this group of enrollees on inpatient hospital stays for SA-related services.

TABLE III.16. Total Medicaid FFS Expenditures per FFS Enrolled Month Among Enrollees with an SA Diagnosis, by State and Demographic Group, Ages 12 or Older (in $)

	Total	Male				Female			
		12-20	21-44	45-64	65 or Older	12-20	21-44	45-64	65 or Older
Alabama	805	704	659	757	1,395	1,016	626	776	1,362
Arkansas	1,455	1,562	1,436	1,596	2,186	1,445	1,155	1,428	2,104
Connecticut	1,663	904	1,549	2,193	2,806	1,153	1,116	2,008	2,807
Idaho	1,852	1,022	2,085	2,031	1,895	1,517	1,814	2,182	1,505
Illinois	1,823	1,155	1,944	2,903	2,300	1,377	1,101	2,299	2,358
Kentucky	1,647	1,905	1,346	2,107	2,050	1,714	1,260	2,132	1,951
Louisiana	1,339	627	1,437	1,867	1,284	740	1,096	1,701	1,123
Mississippi	1,296	1,469	1,117	1,420	1,596	1,705	1,069	1,332	1,320
Missouri	1,665	2,350	1,560	1,725	1,419	2,142	1,491	1,639	1,590
Montana	1,565	1,292	1,377	1,999	2,180	1,574	1,279	1,801	1,924
New Hampshire	1,327	1,677	1,203	1,727	2,436	1,470	987	1,441	2,206
North Carolina	1,519	1,448	1,542	1,880	1,341	1,305	1,231	1,811	1,391
North Dakota	1,508	965	1,396	2,253	2,470	1,384	1,078	2,122	2,677
Oklahoma	1,535	1,354	1,639	2,027	1,596	1,397	1,168	1,716	1,609
South Carolina	1,415	948	1,355	1,926	1,010	1,285	1,286	1,707	717
South Dakota	1,680	1,227	2,106	2,668	2,052	1,512	1,490	2,781	778
Vermont	1,175	1,498	850	1,214	1,853	1,752	1,135	1,384	2,485
Wyoming	2,097	1,713	2,210	2,713	3,145	2,252	1,593	2,705	2,197
Total (18 states)	**1,541**	**1,296**	**1,495**	**2,025**	**1,782**	**1,417**	**1,175**	**1,809**	**1,690**

When examined separately for each of the 18 FFS states, alcoholic cirrhosis of the liver, alcohol-induced persisting dementia, and unspecified episodic mood disorder were each among the top three codes for inpatient hospital services in seven of the 18 states. Unspecified schizoaffective disorder was among the top three codes in six of the 18 states.

5. Comparison of SA User and Non-SA Medicaid Expenditures

Table III.16 shows the total Medicaid FFS expenditures per FFS enrolled months for enrollees using SA services. Expenditures per FFS enrolled month averaged 1,541 across all SA users in the 18 FFS states. Expenditures were higher for individuals over age 45 relative to those 12-44. In the 12-20 age group, expenditures tended to be

higher for females relative to males. This was true for 14 of the 18 states. In contrast, in the age 21-44 group, expenditures tended to be higher for males. This was true in 17 of the 18 states.

Table III.17 shows the expenditures per FFS enrolled months for SA users relative to expenditures per FFS enrolled months for all enrollees in the same demographic group. Overall expenditures for SA users were 2.19 times higher than the average enrollees. Across the states, SA treatment user expenditures ranged from 1.33 times higher than the average enrollee in New Hampshire to 3.42 times higher in Illinois. The difference between SA treatment user and average expenditures was most pronounced among individuals 12-20. Males 12-20 had expenditures 4.08 times higher than average, and females 12-20 had expenditures 4.81 times higher than average.

TABLE III.17. SA Service User FFS Expenditures as a Share of Mean FFS Expenditures per Enrolled Month for All Enrollees, by State and Demographic Group, Ages 12 or Older

	Total	Male				Female			
		12-20	21-44	45-64	65 or Older	12-20	21-44	45-64	65 or Older
Alabama	1.48	2.71	1.14	1.07	1.58	3.85	1.25	1.32	1.48
Arkansas	2.02	4.45	1.26	1.37	1.70	5.00	1.68	1.40	1.57
Connecticut	1.61	3.89	1.35	0.99	1.15	6.00	2.61	1.35	1.11
Idaho	2.01	2.53	1.37	1.36	1.31	4.21	1.81	1.51	0.97
Illinois	3.42	6.29	2.85	2.22	2.30	7.51	3.44	2.43	2.33
Kentucky	2.36	5.43	2.03	2.25	1.97	4.55	2.14	2.23	1.59
Louisiana	2.13	3.41	1.17	1.28	1.25	3.41	1.80	1.44	1.15
Mississippi	2.00	4.96	1.31	1.56	1.57	5.30	1.87	1.73	1.32
Missouri	1.69	3.94	1.40	1.39	1.28	4.67	1.83	1.44	1.30
Montana	1.63	2.20	1.76	1.65	1.26	3.00	1.82	1.51	1.00
New Hampshire	1.33	3.28	0.79	1.02	1.31	3.78	1.40	1.13	1.15
North Carolina	1.88	2.89	1.39	1.41	1.30	3.23	1.84	1.60	1.25
North Dakota	1.20	1.73	0.85	1.03	1.07	2.97	1.50	1.22	1.21
Oklahoma	2.17	3.96	1.58	1.56	1.55	4.58	1.71	1.57	1.40
South Carolina	2.10	2.78	1.52	1.78	1.20	3.67	2.01	1.94	0.85
South Dakota	2.03	2.60	1.82	1.91	1.44	3.85	2.11	2.29	0.56
Vermont	1.76	2.39	1.45	1.76	1.66	3.68	2.23	2.06	2.04
Wyoming	1.77	3.27	1.32	1.30	1.42	4.15	1.42	1.51	1.03
Total (18 states)	**2.19**	**4.08**	**1.64**	**1.63**	**1.57**	**4.81**	**2.17**	**1.78**	**1.43**

IV. FEE-FOR-SERVICE SPENDING IN MANAGED CARE STATES

In this section, we summarize FFS SA expenditures identified in MAX in those states that have predominantly managed care coverage of SA services or substantial reporting issues. Because these data are not representative of the full population of managed care enrollees or are derived from states with reporting anomalies, the results should be interpreted with caution. No results are reported for Maine because it is missing a substantial amount of data, having been unable to report accurately on inpatient, long-term care, and other services in MAX 2008; only eligibility and prescription drug information was reported for the state.

Figure IV.1 shows the distribution of Medicaid FFS SA expenditures in the 31 managed care states and the District of Columbia by demographic group. Males ages 45-64 and 18-44 constitute roughly half of the expenditures (27.9 percent and 24.0 percent, respectively). Females ages 65 and older and children under age 12 account for the smallest and second smallest percentage of all the demographic groups (1.6 percent and 2.5 percent, respectively).

FIGURE IV.1. Distribution of Medicaid FFS SA Expenditures in Managed Care States, by Demographic Group

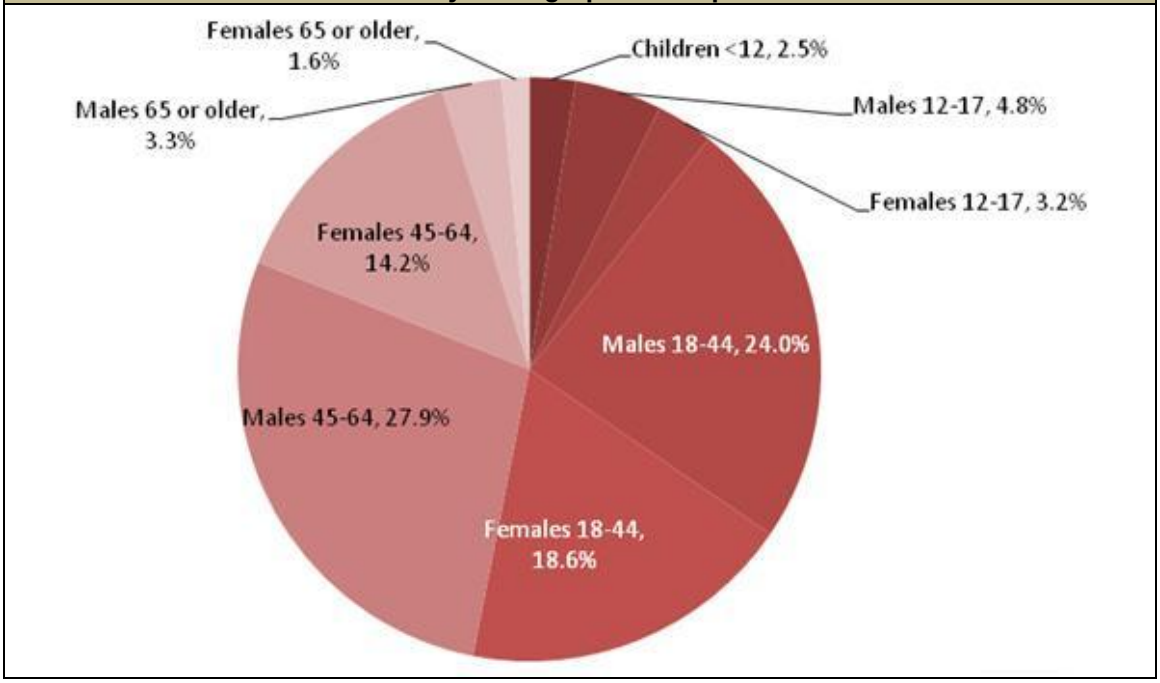


Figure IV.2 shows the distribution of Medicaid FFS SA expenditures in the managed care states by eligibility group. Disabled adults make up the highest percentage of expenditures (45.9 percent), while children under age 12 make up the

smallest percentage (2.5 percent). Among those states with predominantly FFS coverage of SA treatment, adults with disability represented a share of expenditures similar to non-disabled adults. The increased share of FFS expenditures associated with individuals with disability in the managed care states likely results from their exclusion from managed care coverage. Expenditures for non-disabled adults are more likely to be covered under managed care and thus are not represented in these estimates.

FIGURE IV.2. Proportion of Medicaid FFS SA Expenditures in Managed Care States, by Eligibility Group

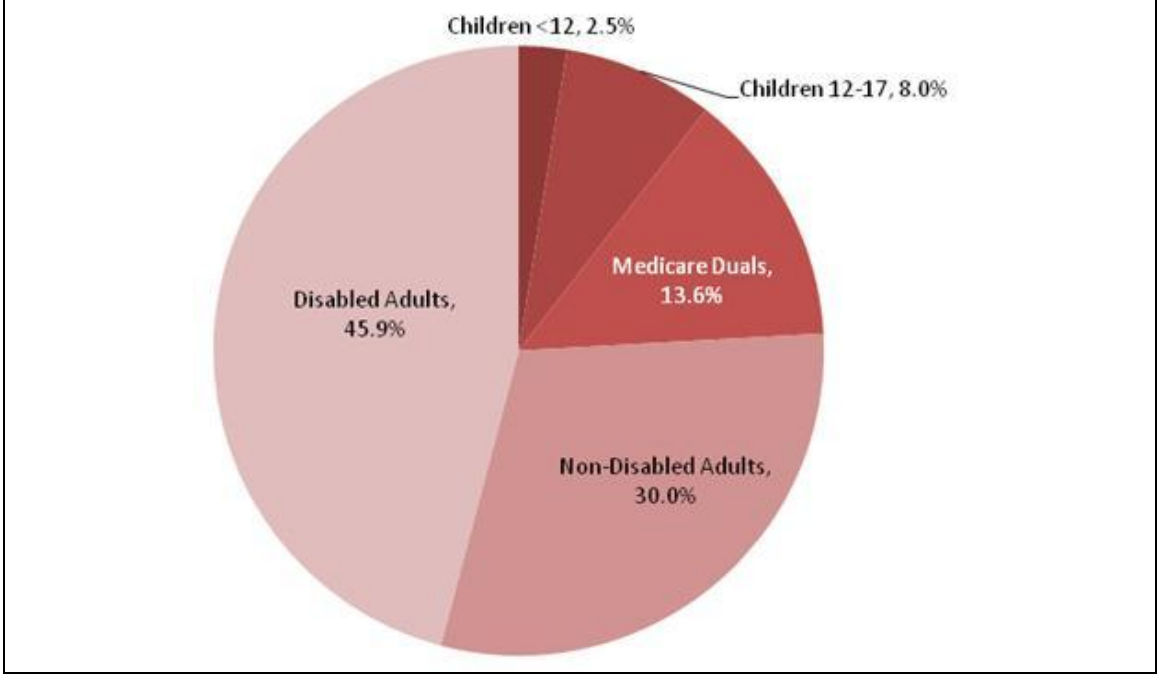


Table IV.1 shows the total core SA treatment FFS expenditures by type of service, state, and age 12 or older in the 32 managed care states. It also shows the percentage of non-duals 12 and older with at least one month of enrollment in a managed care plan that covers SA services. Although Alaska has no managed care enrollment, it was not included in the predominantly FFS service states because of concern that incomplete reporting of primary diagnosis would result in an underestimate of SA treatment services since primary diagnosis is used to identify SA treatment services.

Overall, 1.5 billion in FFS expenditures were identified in these states. This is almost four times the total expenditures identified in the predominantly FFS states. Several states make up a large share of the SA treatment expenditures reported. New York represents 49.4 percent of the FFS expenditures identified in managed care states, although about three-quarters of New York Medicaid enrollees are enrolled in comprehensive managed care, and program descriptions indicate that these plans cover both inpatient and outpatient SA treatment. California, Ohio, and Massachusetts also each represented a substantial share of expenditure, with 12.2 percent, 6.1 percent, and 4.9 percent of managed care states' FFS expenditures, respectively.

TABLE IV.1. Total Core SA Treatment FFS Expenditures, by Type of Service, Managed Care States						
	Expenditures (thousands)					Percentage of Non-Duals 12 & Older Enrolled in Managed Care
	Total Core	Inpatient Hospital	Prescription Drug	Residential Treatment	Outpatient Treatment	
Alaska	6,687	1,523	432	165	4,568	0.0
Arizona	34,143	2,192	0	13	31,938	76.6
California	186,026	21,704	1,313	0	163,009	28.8
Colorado	14,939	8,681	542	0	5,716	93.7
Delaware	6,187	1,046	429	27	4,685	80.6
District of Columbia	5,644	2,560	522	0	2,562	67.4
Florida	27,034	12,950	528	25	13,531	41.2
Georgia	13,644	6,674	154	4	6,813	67.4
Hawaii	4,447	724	143	1,380	2,200	86.8
Indiana	13,569	4,723	657	221	7,967	75.0
Iowa	3,127	2,188	321	0	619	70.9
Kansas	2,815	2,143	209	120	344	96.3
Maryland	13,391	5,808	244	0	7,339	80.0
Massachusetts	73,898	14,999	10,609	2,154	46,136	31.7
Michigan	7,863	5,535	1,137	0	1,191	73.2
Minnesota	38,095	18,249	626	429	18,791	67.0
Nebraska	15,568	11,692	113	786	2,977	90.0
Nevada	3,527	2,109	118	77	1,224	53.4
New Jersey	31,494	11,477	2,146	326	17,544	82.5
New Mexico	2,092	1,212	21	0	859	60.2
New York	751,205	312,526	16,704	0	421,974	76.7
Ohio	93,192	15,735	1,164	0	76,292	84.5
Oregon	8,700	2,409	127	3	6,161	72.5
Pennsylvania	14,599	7,828	4,719	3	2,048	90.8
Rhode Island	11,494	3,563	332	394	7,205	76.0
Tennessee	9,055	2,418	5,447	0	1,189	53.7
Texas	11,097	5,594	1,337	0	4,165	44.7
Utah	8,814	1,623	1,020	4	6,166	0.0
Virginia	10,982	3,608	1,407	635	5,331	66.4
Washington	54,373	6,147	386	6,297	41,543	99.8
West Virginia	12,823	4,974	2,055	1,353	4,440	48.4
Wisconsin	30,183	17,051	3,007	143	9,982	60.4
Total (32 states)	**1,520,706**	**521,664**	**57,970**	**14,561**	**926,511**	**57.4**

Table IV.2 reports the distribution of FFS expenditures in managed care states by type of care. In the 18 predominantly FFS states, 35.2 percent of expenditures were for inpatient hospital care, 51.9 percent were for outpatient care, 5.4 percent were for prescribed drugs, and the remaining 7.5 percent were for residential treatment. For the managed care states, we found a greater share of expenditures for outpatient care (60.7 percent) and a similar percentage for inpatient care (34.0 percent). Residential treatment accounted for only 1.5 percent of expenditures, and prescribed drugs only 3.8 percent. New York's expenditures have a significant impact on this distribution, with no reported residential treatment expenditures, 2.2 percent for prescribed drugs, 41.6 percent for inpatient care, and 56.2 percent for outpatient care. Residential treatment makes up the smallest percentage across the four categories (inpatient hospital, prescription drug, residential treatment, and outpatient treatment) in 28 of the 32 states, with 11 of the 33 states spending zero dollars on residential treatment. We identified a very high share of outpatient treatment expenditures in Arizona, California and Ohio, with 93.5 percent, 87.6 percent, and 81.9 percent of FFS spending for outpatient care, respectively.

TABLE IV.2. Distribution of Core SA Treatment FFS Expenditures, by Type of Service, Managed Care States					
State	Percentage of Core SA Treatment FFS Expenditures				Percentage of Non-Duals 12 & Older Enrolled in Managed Care
	Inpatient Hospital	Prescription Drug	Residential Treatment	Outpatient Treatment	
Alaska	22.8	6.5	2.5	68.3	0.0
Arizona	6.4	0.0	0.0	93.5	76.6
California	11.7	0.7	0.0	87.6	28.8
Colorado	58.1	3.6	0.0	38.3	93.7
Delaware	16.9	6.9	0.4	75.7	80.6
District of Columbia	45.4	9.2	0.0	45.4	67.4
Florida	47.9	2.0	0.1	50.1	41.2
Georgia	48.9	1.1	0.0	49.9	67.4
Hawaii	16.3	3.2	31.0	49.5	86.8
Indiana	34.8	4.8	1.6	58.7	75.0
Iowa	69.9	10.3	0.0	19.8	70.9
Kansas	76.1	7.4	4.3	12.2	96.3
Maryland	43.4	1.8	0.0	54.8	80.0
Massachusetts	20.3	14.4	2.9	62.4	31.7
Michigan	70.4	14.5	0.0	15.1	73.2
Minnesota	47.9	1.6	1.1	49.3	67.0
Nebraska	75.1	0.7	5.0	19.1	90.0
Nevada	59.8	3.3	2.2	34.7	53.4
New Jersey	36.4	6.8	1.0	55.7	82.5
New Mexico	57.9	1.0	0.0	41.1	60.2
New York	41.6	2.2	0.0	56.2	76.7
Ohio	16.9	1.2	0.0	81.9	84.5
Oregon	27.7	1.5	0.0	70.8	72.5
Pennsylvania	53.6	32.3	0.0	14.0	90.8
Rhode Island	31.0	2.9	3.4	62.7	76.0
Tennessee	26.7	60.2	0.0	13.1	53.7
Texas	50.4	12.1	0.0	37.5	44.7
Utah	18.4	11.6	0.0	70.0	0.0
Virginia	32.9	12.8	5.8	48.5	66.4
Washington	11.3	0.7	11.6	76.4	99.8
West Virginia	38.8	16.0	10.6	34.6	48.4
Wisconsin	56.5	10.0	0.5	33.1	60.4
Total (32 states)	**34.3**	**3.8**	**1.0**	**60.9**	**57.4**

V. NATIONAL ESTIMATES OF MEDICAID SUBSTANCE ABUSE TREATMENT SPENDING

In this section, we present our estimates of Medicaid SA-related expenditures. First, we present CY 2008 estimates of SA treatment spending. Second, we present projections to FY 2011.

A. CY 2008 SA Treatment Spending by State

In Appendix Tables C.1 through C.5, we present estimates of overall Medicaid SA expenditures for CY 2008. These estimates include FFS expenditures reported to MAX as well as imputed expenditure amounts for the managed care populations whose SA treatment expenditures cannot be identified in MAX. The tables array estimates for all 50 states and the District of Columbia for five types of SA-related services.

- **Appendix Table C.1: Core SA Treatment Services.** The expenditures in this table pertain to core SA treatment services--that is, services with a primary diagnosis indicating treatment of an SA disorder. This set of expenditures is defined to parallel the set of services included in SSE.

- **Appendix Table C.2: Services Related to Fetal Exposure or Poisoning Related to Drugs or Alcohol.** These services have either a primary diagnosis of fetal drug or alcohol exposure, noted in Appendix Table B.1 and Table B.2 as "fetus" or a primary diagnosis of poisoning related to drugs or alcohol, identified in Appendix Table B.1 and Table B.2 as "poisoning."

- **Appendix Table C.3: Services for Other Medical Conditions 100% Attributable to SA.** This category includes claims for other services with a primary diagnosis of a medical condition 100 percent attributable to SA. In Appendix Table B.1 and Table B.2, the services comprise all other codes identified as "supplemental."

- **Appendix Table C.4: MH Services with a Secondary Diagnosis of SA Disorders (MH w/SA).** This group comprises services with a primary diagnosis of a mental disorder and a secondary diagnosis on the same claim either from the core or one of the first three supplemental groups listed above. We identified claims with a primary MH diagnosis based on the codes in Appendix Table B.3.

- **Appendix Table C.5: Other Medical Services with a Secondary Diagnosis of SA Disorder (Non-MH w/SA).** This group includes claims with primary diagnoses not identified as MH disorders that include a secondary diagnosis on

the same claim either from the core or one of the first three supplemental groups listed above.

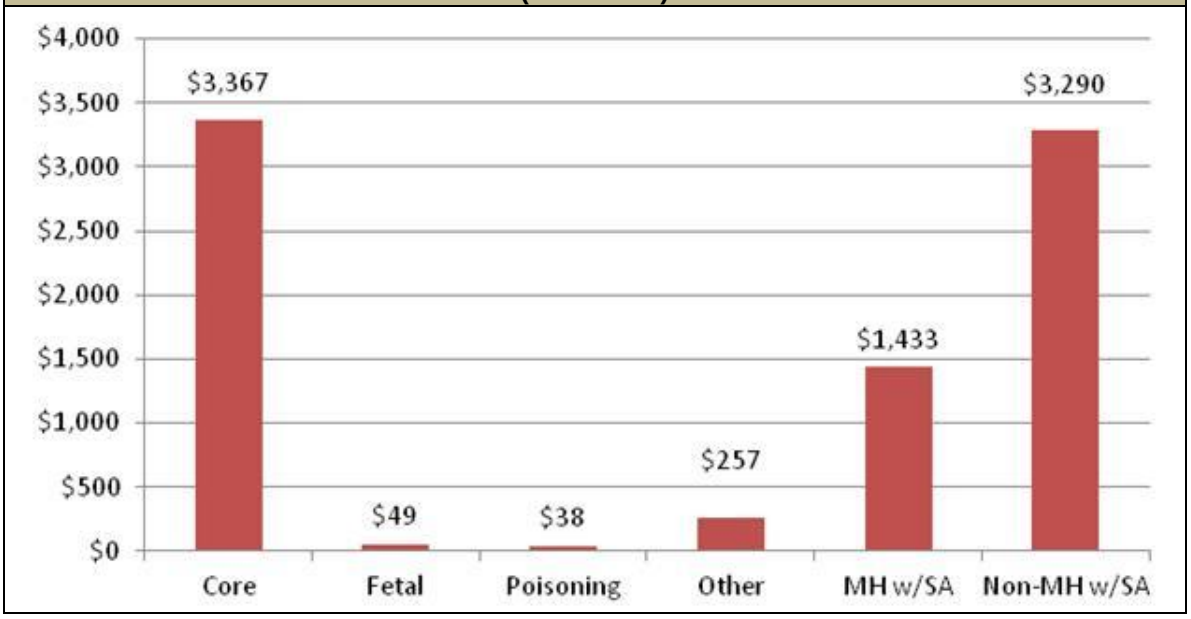
Overall, we estimate Medicaid core SA treatment spending in CY 2008 as 3.4 billion (Appendix Table C.1). The set of services defined as core SA treatment services is designed to parallel estimates of SA treatment spending reported in SAMHSA's spending estimate projections for 2004 through 2014.[9] The SSE estimate for Medicaid spending on SA treatment in 2003 is $3,710 million with projection to 2006 of $4,279 million. The average annual growth rate projected for Medicaid SA treatment spending in the SSE is 5.8 percent for 2003 through 2014. Projecting the 2006 estimate forward based on this average projected growth rate would imply an estimate of Medicaid spending for CY 2008 of $4,790 million. The estimate from this study is approximately 30 percent below this prior estimate. Similar to the current study, the SAMHSA Survey of Revenue and Expenditures (SSR&E) estimates SA treatment expenditures in 2009 at a level below the SSE estimate for 2005. The SSR&E represents only specialty SA treatment providers, in contrast to the current study, which represents all providers. The specialty facility spending represented in the SSR&E is about half of all SA treatment spending represented in the SSE. The SSR&E estimate for 2009 for all payers is 94 percent of the SSE estimate for 2005. The SSR&E estimate of the Medicaid share of specialty SA treatment spending is 14 percent.[10] This contrasts with the SSE estimate of the Medicaid payment share as 18 percent in 2006 increasing to 20 percent by 2014. The gap between the estimates from the SSR&E and the current study and SSE estimates may be attributable to limitations in the data available to support the SSE estimates at the time they were developed. In particular, comprehensive data on unit prices and the "payers source" distribution associated with specialty SA treatment expenditures were unavailable to support development of the SSE after 1998--prior to the SSR&E survey in 2009. Thus, a substantial portion of the SSE estimate of Medicaid SA treatment spending was imputed.

The SSE represents only those SA treatment expenditures to which we refer as core services. The SSE does not include the other five categories of SA treatment-related spending estimated in this study. The estimated expenditures for these categories are displayed in Figure V.1. Appendix Tables C.2 through C.5 display detailed estimates for these categories by state.

[9] Levit, K.R. et al. *Projections of National Expenditures for Mental Health Services and Substance Abuse Treatment, 2004-2014*. SAMHSA Publication No. SMA 08-4326. Rockville, MD: SAMHSA, 2008.

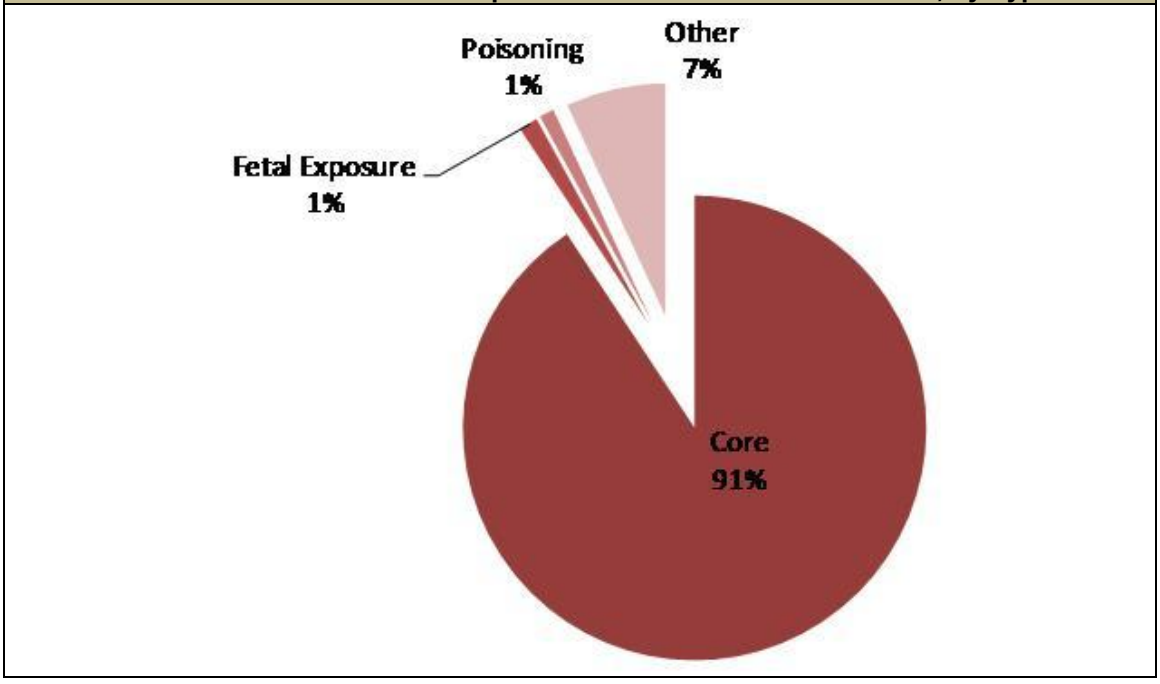
[10] Salvucci, S., E. Bouchery, J. Ingels, E. Grau, H. Harwood, Y. Zheng, and C. Ye. *SAMHSA Survey of Revenue and Expenditures: Data on Specialty Substance Abuse and Mental Health Treatment Facilities: Final Report*. Mathematica Report to SAMHSA, submitted September 1, 2011.

FIGURE V.1. Medicaid Expenditures for SA Treatment, CY 2008 by Type (in millions)



The expenditures in Appendix Tables C.1 through C.3 are 100 percent attributable to SA. As displayed in Figure V.2, among the costs 100 percent attributable to SA, 90.8 percent are related to core services. One percent is related to poisoning and another 1.3 percent to fetal exposure, with 6.9 percent related to other medical conditions fully attributable to SA.

FIGURE V.2. Distribution of Expenditures 100% Attributable to SA, by Type



The expenditures in Appendix Table C.4 and Table C.5 are only partially related to SA. The $1.4 billion in expenditures reported in Appendix Table C.4 have a primary diagnosis of MH, and the $3.3 billion in expenditures reported in Appendix Table C.5 have a non-MH primary diagnosis.

Table V.1 below summarizes the number of Medicaid enrollees identified using SA treatment services in each category. Individuals using more than one category are counted in all service categories they used. Overall, we estimated 1.1 million Medicaid enrollees received core treatment services. Across the other categories of SA services analyzed approximately an additional 600,000 Medicaid enrollees were estimated to have a claim with a SA-related diagnosis.

TABLE V.1. Medicaid Substance Treatment Users, CY 2008

Type of SA Service	CY 2008 (in thousands)
Core SA Treatment Services	1,138
Fetal Drug or Alcohol Exposure	35
Poisoning Related to Drugs or Alcohol	25
Other Medical Conditions 100% Attributable to SA	53
MH Services with SA as a Secondary Diagnosis	281
Non-MH Services with SA as a Secondary Diagnosis	575
Total Enrollees Identified with SA Related Claim[a]	1,717

a. Rows above do not sum to this total because some users are identified on more than one type of claim.

B. FY 2011 SA Treatment Spending by State

We projected the CY 2008 estimates from Appendix C forward to FY 2011. In Appendix D, Tables D.1 through D.5, we present these projections. These tables include estimates for all 50 states and the District of Columbia for six types of SA-related services. Table V.2 below summarizes these projections.

TABLE V.2. Projected Medicaid Substance Treatment Spending, FY 2011

Type of SA Service	CY 2008 (in millions)	FY 2011 (in millions)	Annualized Percentage Growth Rate
Core SA Treatment Services	3,367	3,952	6.0
Fetal Drug or Alcohol Exposure and Poisoning	87	98	4.6
Other Medical Conditions 100% Attributable to SA	257	292	4.8
MH Services with SA as a Secondary Diagnosis	1,432	1,586	3.8
Non-MH Services with SA as a Secondary Diagnosis	3,290	3,659	3.9

The projected trends vary by state and type of service. The estimated annual percentage growth rate across the service types ranges from 3.8 percent to 6.0 percent between CY 2008 and FY 2011. Based on the CMS-64 reports, overall total net

Medicaid spending increased by 7.8 percent, 6.4 percent and 6.3 percent for the periods FY 2008-FY 2009, FY 2009-FY 2010, and FY 2010-FY 2011, respectively. Thus, the rate of increase for core SA treatment services was slightly lower than the overall rate of increase for Medicaid. Since our method entailed applying 98 percent of the Medicaid trend by service and state, increases below the overall Medicaid trend were likely. However, a rate of increase above that observed in the Medicaid program overall is possible, because states with higher rates of Medicaid spending increase tend to have a disproportionate share of SA treatment-related expenditures.

VI. DISCUSSION

Although MAX data have a number of limitations, MAX is a viable source for developing estimates of Medicaid SA treatment spending. In the first section below, we discuss the limitations of MAX data and of this study. We then discuss the programmatic implications of the study findings.

A. Limitations of MAX Data and Study

Despite gaps in and limitations to the data available from MAX for estimating Medicaid SA treatment expenditures, the MAX data provide information on SA treatment expenditures for the majority of Medicaid enrollees ages 12 and over who are eligible for SA treatment coverage. Overall, we imputed SA treatment expenditures for about 42 percent of Medicaid enrolled months. We based about 21 percent of the imputations on encounter data or own-state FFS population experience. We based the remaining 79 percent of the imputations on FFS states' experience. Overall 42 percent of the final estimate of core SA treatment spending was derived from the imputations.

A significant limitation to use of the experience of predominantly FFS states for imputation is the substantial variation in delivery systems and the differences in Medicaid eligibility and programmatic characteristics across states. Our method only partially compensates for these differences by developing estimates by demographic and eligibility groups and adjusting for differences in specialty SA treatment supply across states. The mean expenditures per enrolled month for beneficiaries ages 12 and over in each state generally correlate well with a state's classification as a low, medium, or high-supply state. However, in states with high managed care penetration, the correlation is a function of the imputation method; in other states, the relationship is based on the states' experiences as observed in MAX.

SA and MH treatment are provided through an array of services in various treatment settings. Coverage and delivery of these services vary substantially across states. We used the 2008 National Summary of State Medicaid Managed Care Programs to determine whether SA treatment services were covered under a capitated plan in 2008. However, this document does not detail the nuances of state and managed plan coverage. Our imputations do not capture the details of each state's coverage system and thus should be viewed as gross estimates of the approximate level of managed care spending in each state.

Another limitation of the imputation method relates to the lag in managed care enrollment. Typically, in managed care states, individuals new to Medicaid receive Medicaid coverage under FFS for an initial period as a function of retrospective eligibility and the time needed for an individual to choose and enroll in a managed care plan. The

initial months typically involve higher average expenditures than those associated with managed care enrolled months, because an acute health care need often prompts enrollment in Medicaid and demand for medical services may be pent up. MAX does not identify retrospective months of eligibility or indicate the date an enrollee first became enrolled in Medicaid. Given these limitations of the MAX data, we did not make any related adjustments.

In addition to the lack of expenditure data for the population enrolled in managed care, MAX evidences some reporting anomalies and data quality issues for some states. The final column of Appendix Table F.9 summarizes issues related to these estimates for each of the 50 states and the District of Columbia. Maine's data have the most significant limitations because, with the exception of prescription drug claims, MAX does not include claims files. For other states, limitations are associated largely with the incompleteness of coding for primary diagnosis; our analysis relies on the primary diagnosis to identify SA treatment services. Twenty-one states have incomplete reporting of primary diagnosis in either the long-term care or other service files. However, incomplete reporting often affects only a small minority of claims and may result from claims types such as non-emergency transportation, on which a provider would not record an enrollee's diagnosis. Nonetheless, reporting anomalies and data quality issues bias our estimates downward.

B. Comparison to Prior Estimates

The estimate of Medicaid core SA treatment spending developed in this study for CY 2008 is substantially below the projections of Medicaid SA treatment spending developed by SAMHSA for 2004-2014 in the SSE. While the current study is limited because of the level of imputations, the SSE estimates were limited because data on unit prices and the "payer source" distribution for specialty SA treatment providers were unavailable to support development of the SSE after 1998--prior to the SSR&E survey in 2009. Thus, a substantial portion of the SSE estimates of Medicaid SA treatment spending were imputed. The SSE estimated Medicaid payments represented 18 percent of overall SA treatment payments in 2006 increasing to 20 percent by 2014. The findings from this study suggest that Medicaid likely represents a smaller share of overall SA treatment spending.

In addition to developing SA treatment spending estimates that parallel those in the SSE, this study also examined additional categories of medical treatment that are fully or partially related to SA. The addition of fetal exposure, poisoning, and other medical conditions fully related to SA increased the estimate of expenditures for SA treatment by about 10 percent. Also, we identified $1,433 million in expenditures for MH services with a secondary diagnosis of SA. This suggests only about 4 percent of Medicaid MH service expenditures had a secondary SA diagnosis.[11] This percentage is

[11] According to the SSE, the Medicaid program spent approximately $29,059 million on MH treatment in 2006. Using the SSE average annual projected growth rate from 2003 to 2014 (6.9 percent), we estimate spending in CY 2008 as $33,207 million.

low given the high rate of co-morbidity between MH and SA disorders. The low percentage of MH expenditures identified with a secondary SA diagnosis may be due to under-coding of secondary diagnoses. Finally, this study identified $3,290 million in Medicaid expenditures for services with a non-MH primary diagnosis and a SA secondary diagnosis. These expenditures represent almost 1 percent of overall Medicaid expenditures. Thus, overall slightly more than 1 percent of Medicaid spending was identified as primarily related to SA and an additional 1½ percent was identified with a secondary SA diagnosis.

APPENDIX A. STUDY METHODS

The Medicaid Analytic eXtract (MAX) files for calendar year (CY) 2008 provide the foundation for this analysis. They contain detailed information on Medicaid enrollment and the services received by Medicaid enrollees in each of the 50 states and the District of Columbia, but do not reflect all services received by Medicaid beneficiaries. The most significant gap is incomplete reporting of services provided to managed care enrollees. Data quality issues, reporting anomalies, and inconsistencies in reporting account for other data gaps.

In this appendix, we first present an overview of state variation in coverage and delivery of substance abuse (SA) treatment services. In the second section, we describe the methods we used to develop estimates of SA treatment users and expenditures in states with fee-for-service (FFS) and managed care coverage of SA.

I. ASSESSMENT OF STATE VARIATION

In this section, we review variation by state in service coverage and delivery system for providing SA and mental health (MH) services and the quality and completeness of claims data available in MAX.

A. State Variation in SA Service Coverage

In November 2010, the National Association of State Alcohol and Drug Abuse Directors (NASADAD) produced a summary of SA services covered in each state, based on the Medicaid state plans and discussions with state Medicaid officials.[12] We mapped the categories included in Table 2 of that document, *Medicaid Program Coverage of Substance Abuse Services and the Service Categories in Which They Are Established*, to the study categories as presented in Appendix Table A.1 below. The NASADAD study did not include a corresponding treatment category for institutional long-term care/specialty hospital care, and three of the outpatient treatment categories we considered for this study--outpatient treatment program, other counseling and therapy, and detoxification--mapped to a single NASADAD category for general outpatient treatment.

Appendix Table E.1 shows a subset of the results of NASADAD's survey of Medicaid SA treatment coverage, based on information provided by state officials (47 states, including the District of Columbia, provided responses) or from review of information on states' websites. Federal Medicaid guidelines require all states to cover

[12] National Association of State Alcohol and Drug Abuse Directors. *NASADAD Inquiry--State Medicaid and SCHIP Coverage of Substance Abuse Services*. Washington, DC: NASADAD, November 2010.

certain benefits. Acute inpatient care is among these mandatory benefits and includes medically necessary inpatient detoxification services. Also included are early and periodic screening, diagnostic, and treatment (EPSDT) services for individuals under 21 years of age. SA treatment needs identified as part of these screenings must be covered in all states. Thus, services are provided by all states, even if not reported by them.

TABLE A.1. Mapping of NASADAD SA Service Categories to Study Categories

NASADAD Category	Study Category
Medically managed intensive inpatient treatment	Institutional care: acute inpatient care
NA	Institutional care: institutional long-term care/specialty hospital care
Short-term residential inpatient/long-term residential inpatient	Residential treatment
Intensive outpatient/partial hospitalization	Outpatient treatment: intensive treatment program
Outpatient treatment	Outpatient treatment: detoxification/counseling therapy/treatment program service
Early intervention/crisis	Outpatient treatment: other screening/intervention
Methadone treatment	Outpatient treatment: other medication management
Case management	Outpatient treatment: other case management

SOURCE: NASADAD inquiry.
NA = not available.

Provision of other types of SA treatment services is optional under federal guidelines and thus varies substantially across the states. According to the information reported to NASADAD, eight states--Arkansas, Kentucky, Louisiana, Mississippi, Nevada, New Hampshire, Texas, and West Virginia--and the District of Columbia provide only these mandatory services or extremely limited coverage for SA treatment. In Arkansas, Mississippi, and the District of Columbia, SA treatment services are covered only for individuals with a co-occurring MH disorder. In Texas and Nevada, only methadone treatment services are generally available. Based on the NASADAD survey, all of the remaining 42 states (the 50 states less the eight mentioned above) provide outpatient treatment services. In addition, 34 provide methadone treatment, 33 provide intensive outpatient services and/or partial hospitalization, and 26 provide residential treatment.

B. Coverage of SA Services in Comprehensive Managed Care

This analysis used the person summary (PS), inpatient (IP), other services (OT), long-term care (LT), and prescription drug (RX) MAX files to identify beneficiaries receiving SA services and their associated Medicaid expenditures. Unfortunately, MAX data do not include all Medicaid-covered services. In particular, for services provided through managed care plans, MAX includes claims for capitation payments made by the states, but reporting of encounter data claims for these services is incomplete. Thus, in this section, we identify which states use health maintenance organizations (HMOs)/ Health Insuring Organizations (HIOs), and behavioral health organizations (BHOs), and whether those providers are responsible for coverage of SA treatment services.

In Appendix Table A.2 below, we identify which states use primary FFS reimbursement and which use HMOs, BHOs, or both.

TABLE A.2. State Medicaid Delivery Systems		
Managed Care	**Count**	**States**
FFS Only	13	AK, AR, ID, LA, ME, MS, MT, NH, ND, OK, SD, VT, WY
State Has Only HMOs	18	AL, CA, CT, DE, DC, IL, IN, KY, MD, MN, MO, NV, NJ, OH, RI, SC, VA, WV
State Has Both HMOs & BHOs	18	AZ, CO, FL, GA, HI, IA,[a] KS, MA, MI, NE, NM, NY, OR, PA, TN, TX, WA, WI
State Has BHOs Only	2	NC, UT
SOURCE: MAX 2008 Eligibility Anomaly Tables. a. Iowa had only one HMO, with low enrollment, which left in the state in 2008.		

To assess which SA and MH services are covered by managed care organizations in each state with HMO or BHO programs, we examined the 2008 National Summary of State Medicaid Managed Care Programs. This report provides qualitative information, including populations served, services covered, and quality improvement activities. Data are collected by the Data and System Group at the Centers for Medicare and Medicaid Services (CMS) from state Medicaid agencies and CMS regional offices. The data presented are always current as of June 30 of the applicable year.

Using this report, we identified which state HMO and BHO programs listed MH and SA as included services. (They typically are not covered by other types of managed care organizations, such as long-term care plans, primary care case management programs, or disease management programs.) In cases in which the report noted that an HMO or BHO covers MH services but did not say whether it covers SA services, we assumed the delivery system or program responsible for providing the former is also responsible for providing the latter. For example, for a state in which MH services are carved out of an HMO, a BHO provides them, and the National Summary Report description of the programs did not mention SA, we assumed the BHO provides any SA services known to be covered by that state. For each state, Appendix Table E.2 displays whether MH and SA services are covered by an HMO, carved out of an HMO and covered through FFS or by a BHO, included under both an HMO and a BHO, or covered under a BHO if the state has no HMO. This information is summarized below in Table A.3.

MH and SA services are covered exclusively by an HMO in 23 of the 38 states with HMO and/or BHO programs (Table A.3). For nine states, MH and SA services are carved out of an HMO and covered either through FFS (Alabama and Kentucky) or under a BHO (Colorado, Connecticut, Kansas, Iowa, Nebraska, New Mexico, and Pennsylvania). For four states (California, South Carolina, Washington, and West Virginia), both an HMO and a BHO listed coverage for SA services. In North Carolina and Utah, the Medicaid program does not deliver services through an HMO. However, these states do have a BHO program. Appendix Table E.2 includes state-specific notes providing additional details about the managed care programs that cover these services.

TABLE A.3. SA and MH Services Coverage, by Delivery System		
SA Coverage	**Count**	**States**
SA Services Covered Exclusively By HMO	23	AZ, DE, DC, FL, GA, HI, IL, IN, MD, MA, MI, MN, MO, NJ, NV, NY, OH, OR, RI, TN, TX, VA, WI
SA Services Carved Out of HMO & Provided Through FFS	2	AL, KY
SA Services Carved Out of HMO & Provided Through BHO	7	CO, CT, IA,[a] KS, NE, NM, PA
Both HMO & BHO Cover SA Services	4	CA, SC, WA, WV
BHO Covers SA Services (state does not have HMO)	2	NC, UT
SOURCE: 2008 National Summary of State Medicaid Managed Care Programs. a. Iowa had only one HMO, with low enrollment, which left in the state in 2008.		

Our analysis of which SA and MH benefits are covered under managed care plans feeds into our assessment of which states have data of suitable quality for analysis. Accordingly, among those states identified as having managed care coverage of SA, we conducted a preliminary assessment of which were likely to have complete encounter data of usable quality. We looked at states with at least 50 percent of enrollees in HMOs, as those with a high level of managed care enrollment are likely to devote more resources to and focus more on collecting accurate encounter data. We then looked at which of these states have HMO encounter data in MAX and made assessments based on knowledge gained by the project team from other work on MAX encounter data. Based on this analysis, we decided to assess the encounter data for SA services in Arizona, Indiana, Kansas, Maryland, New Mexico, Washington, and Virginia. We provide a description of this assessment in Section II.B below.

C. Data Quality Analysis

Information about state data quality was compiled from several sources. The Data Anomalies Report, produced by Mathematica's Medicaid Statistical Information System (MSIS) validation project, includes information on all known anomalies within the data, with clarification on the cause of each anomaly if it could be determined through research on the state in question. We also used the MAX 2008 Eligibility Anomaly Tables, Claims Anomaly Tables, and Cross-State Validation Tables.

Our analysis of each state's data was concerned with the following quality issues:

- Known HMO or BHO reporting problems (Source: MSIS State Anomalies/ Issues).
- Populations known to be missing (Source: MSIS State Anomalies/Issues).
- Diagnosis code issues (Source: MSIS State Anomalies/Issues).
- MSIS ID issues (Source: MSIS State Anomalies/Issues).

- Inconsistencies between MAX and CMS June 2008 managed care data (Source: MAX 2008 Eligibility Anomaly Tables, Table 9).

- Anomalies in the percentage of Medicaid Enrollment Data Base (EDB) dual eligibles not reported in MAX (Source: MAX 2008 Eligibility Anomaly Tables, Table 5).

- Anomalies in the percentage of Records Missing Medicaid Eligibility Information (Source: MAX 2008 Eligibility Anomaly Tables, Table 1).

- Restricted-Benefits Group 5 (other restricted benefits) issues (Source: MAX 2008 Eligibility Anomaly Tables, Table 8).

- Restricted-Benefits Group A (Psychiatric Residential Treatment Facilities [PRTFs]) grant issues (Source: MAX 2008 Eligibility Anomaly Tables, Table 8).

- Anomalies in the percentage of beneficiaries with private health insurance (Source: MAX 2008 Eligibility Anomaly Tables, Table 10).

- Anomalies in the HMO/HIO ratio of capitation claims to person-month enrollment (Source: MAX 2008 Claims Anomaly Tables, PS Table 8).

- Anomalies in the percentage of claims with primary diagnosis (Source: MAX 2008 Claims Anomaly Tables, IP Table 2, LT Table 2, and OT Table 2).

- Anomalies in the average fees paid by Medicaid for key services: inpatient hospital, MH for the aged, inpatient psychiatric facility age <21, physician services, other practitioner services, outpatient services, clinic services, prescription drugs, psychiatric services, and other services (Source: MAX 2008 Claims Anomaly Tables, PS Tables 13-15).

- Anomalies in the percentage of beneficiaries with reported managed care enrollment who have capitated payments (Source: State by State MAX 2008 Validation Tables, PS Table).

Our assessment, using the methodology described above, revealed some data quality limitations affecting this analysis. Some states are missing data in MAX 2008, and some with complete data have data quality issues. Maine is missing a substantial amount of data, having been unable to report accurately on inpatient, long-term care, and other services in MAX 2008; only eligibility and prescription drug information is included for the state. Massachusetts, Utah, and Wisconsin were not able to submit all of their claims by the deadline for MAX 2008 and are missing the final quarter of MSIS submissions typically included in MAX. For states with complete data, the most significant issue at this phase of analysis appears to be a high percentage (more than 40 percent) of missing primary diagnosis codes in the other services (OT) files for some

states (Alaska, Massachusetts, New Mexico, and Oregon). The final column of Appendix Table E.2, Known Data Quality Issues, summarizes the most significant issues identified for each state.

II. ESTIMATION METHODS

In this section, we first describe the methods we used to develop estimates of SA treatment users and expenditures associated with SA treatment services for which FFS claims data are included in the MAX files. We then review the methods we used to estimate SA treatment users and expenditures associated with managed care enrollment or other gaps in the MAX data.

A. Development of Estimates for Enrollees and Services Represented in MAX Data

The Medicaid program covers several categories of enrollees that may vary both in their eligibility for coverage of SA treatment services and their treatment needs. As described below, we develop separate estimates for beneficiaries depending on their level of coverage, demographic characteristics and source of eligibility. Similarly, a range of treatment services is associated with SA. Some services primarily treat the SA disorder, and others may treat medical complications of SA or SA as a co-morbid condition. To address the range of SA treatment services, we divided SA treatment services into several categories.

1. Classification of Enrollees

We classified Medicaid enrollees into four groups: excluded, partial-benefit, near-full benefit, and full-benefit. After identifying those services and enrollees in MAX that are excluded from our analysis, we then discuss how the remaining enrollees are classified into groups.

a. Exclusions

Given that the goal of this analysis is to identify Medicaid SA treatment expenditures comprehensively, we excluded from the analysis file Medicaid enrolled months during which an enrollee was in a restricted-benefit population not covered for SA treatment services. These populations can be identified based on the MAX variables Restricted-Benefit Flag (RBF) and EDB Dual with the codes noted below. We also exclude State Children's Health Insurance Program (S-CHIP) enrollees and claims missing enrollment records because of incomplete data in MAX for these enrollees. These populations are the following:

- **S-CHIP only.** The MAX files do not include claims for S-CHIP. Our estimates thus do not include the months in which beneficiaries are enrolled in S-CHIP only. However, given that claims for Medicaid expansion Children's Health

Insurance Program (M-CHIP) enrollees are available in the MAX files, we include in our analysis the months of enrollment in M-CHIP.

- **Claims missing enrollment records.** In the MAX file, 0.46 percent of claim expenditures cannot be linked to an enrollee and thus are excluded from our analysis.

- **RBF.** Some groups of restricted-benefit enrollees are not eligible for SA treatment services, including enrollees receiving family planning benefits only **(RBF = 6)** and those receiving premium assistance only **(RBF = W)**.

- **Medicare/Medicaid dual eligibles who are eligible only for payment of Medicare premiums (EDB Dual = 53, 55, 56, 57).** These Medicaid enrollees are not eligible for coverage of any SA treatment service costs.

b. Classification of Enrollees by Level of Coverage

Several groups of Medicaid enrollees not eligible for full-coverage of SA treatment services are eligible for partial coverage. We divided the groups into those whose coverage per enrolled month is near that of the full-benefit package and those likely to have substantially lower coverage. In our analysis, the groups with near-full benefit coverage are combined with full-benefit enrollees. Individuals with partial coverage are addressed separately. The near-full benefit and partial-benefit groups are identified below. Enrollees identified as having partial-benefits in any month were assigned as partial-benefit enrollees for the full year. If the enrollee had no partial-benefit months, but had at least one month of near-full coverage they were assigned to near-full benefit for the whole year.

Near-full benefit enrollees:

- **Pregnancy-related coverage (RBF = 4).** Individuals eligible for Medicaid based on pregnancy may receive comprehensive benefits during the pregnancy, including SA treatment.

- **Benchmark-equivalent benefits (RBF = 7).** Even though individuals eligible for benchmark-equivalent benefits receive a different benefit package than that offered under the Medicaid state plan services, the services might include SA treatment. West Virginia and Idaho were the only states with substantial enrollment in the benchmark plan in 2008.

- **Health opportunity account (HOA) (RBF = B).** The group of individuals with HOAs was new in MAX 2008. An HOA requires a particularly high deductible, and special HOAs are set up for Medicaid beneficiaries to help them manage out-of-pocket medical expenses. Our recent examination of the Medicaid expenditures of HOA enrollees in Indiana found the expenditures to be aligned with those of full-coverage beneficiaries; therefore, we recommend that HOA

enrollees remain in the full or near-full benefit group rather than in the partial-benefit group.

- **PRTF (RBF = A).** PRTFs are federally recognized facilities that provide psychiatric and medical services to individuals under age 21. Patients entering PRTFs must be certified by the state as meeting specific criteria for admission and additional criteria for continued stay. Such individuals receive an enhanced benefit for behavioral health and thus are part of the near-full benefit group.

Partial-benefit enrollees with FFS coverage of SA treatment:

- **Non-qualified aliens (RBF = 2).** These individuals are eligible for Medicaid coverage of emergency services, some of which may be SA related.

- **EDB Dual eligibles (EDB Dual = 51, 52, 54, 58).** Unlike the dual eligibles who receive premium assistance only and are excluded from the analysis, these duals are eligible for all Medicaid benefits. However, their Medicare insurance makes Medicaid a secondary payer, covering Medicare coinsurance and deductibles associated with SA treatment and SA treatment services not covered by Medicare.

- **Individuals with private insurance coverage (PVT INS CD = 2-4).** Individuals with private insurance may not have comprehensive benefit packages. Medicaid may cover services related to SA treatment that are not covered by private insurance or coinsurance.

- **Other benefits (RBF = 5).** Coverage varies by state.

- **Only prescription drug benefits (RBF = X, Y, or Z).** Vermont and Wisconsin are the only states with significant programs in this category. Vermont provides drugs to low-income Medicare beneficiaries only. Wisconsin's SeniorCare waiver extends PharmPlus coverage to the elderly and does not cover premiums, pays smaller co-payments than Part D, and ensures no gaps in prescription drug coverage.

- **Money Follows the Person (MFP) (RBF = 8).** This program helps Medicaid enrollees make the transition from an institution to the community by eliminating barriers and mechanisms in state law, state Medicaid plans, or state budgets that prevent or restrict the flexible use of Medicaid funds to enable eligible individuals to receive long-term care in the setting of their choice. The MAX data do not include services provided through grant funds under MFP.

Enrollees not excluded nor classified as partial or near-full are classified as full-benefit.

c. Demographic and Eligibility-Based Categories of Users

We grouped Medicaid enrollees into categories based on age, gender, and eligibility characteristics expected to have similar levels of need for SA treatment. For example, children younger than 12 were distinguished from those older than 12 because those younger than 12 rarely use SA treatment services. Individuals less than 21 were distinguished from those 21 and older because SA treatment services may be covered under the EPSDT program and those less than 21 are eligible for these benefits. We distinguished by gender because the National Survey on Drug Use and Health (NSDUH) indicates that males are more likely than females to have an SA or dependence disorder.[13] Enrollees were assigned to categories based on their age as of January 1, 2008.

We also identified three eligibility-based groups: (1) individuals dually eligible for Medicare and Medicaid (Medicare dual eligibles); (2) individuals who are not dual eligibles and whose eligibility is not based on disability (non-dual, non-disabled); and (3) individuals who are not dual eligibles and whose eligibility is based on disability (non-dual, disabled). (We distinguished by whether an enrollee's eligibility is based on disability because we expected that there might be distinct patterns of SA treatment needs within groups. Specifically, the many individuals who qualify for disability based on MH disorders have a higher likelihood of an SA disorder than those who do not.) Enrollees were assigned to an eligibility category based on their eligibility status in their last month of Medicaid enrollment in the year.

2. Identification and Classification of Services

In this section, we discuss how we identified individuals with an SA diagnosis and categorized SA treatment services into groups. Our approach varied across the MAX data files. First, we outline our approach to three claims files: IP, LT, and OT files. We then discuss the approach used for the RX and the PS files.

a. Inpatient, Long-Term Care, and Other Claims Files

We identified several sets of SA-related services. If a service qualified for more than one category, we assigned it only to the first category listed. The service categories are the following:

- **Core SA treatment services.** This category includes claims for services with a primary diagnosis of an SA disorder. In Appendix Table B.1 and Table B.2, we display the diagnosis codes we used to define treatments of alcohol and drug disorders, respectively. The third column of the tables identifies these services as "core." The diagnosis codes are consistent with those used by the Substance

[13] Substance Abuse and Mental Health Services Administration. *Results from the 2008 National Survey on Drug Use and Health: National Findings*. NSDUH Series H-36, HHS Publication No. SMA 09-4434. Rockville, MD: SAMHSA, 2009, chapter 7. Available at http://oas.samhsa.gov/NSDUH/2k8NSDUH/2k8results.cfm#7.3. Accessed July 27, 2012.

Abuse and Mental Health Services Administration (SAMHSA) in its estimates of National Expenditures for Mental Health Services and Substance Abuse Treatment, referred to as the SAMHSA Spending Estimates (SSE).[14] As discussed below, prescribed drugs for SA treatment are also included in this category.

- **Services related to fetal drug or alcohol exposure.** This category includes services with a primary diagnosis of fetal drug or alcohol exposure. In Appendix Table B.1 and Table B.2, the services are identified as "fetus."

- **Services related to poisoning by drugs or alcohol.** This category includes services with a primary diagnosis of poisoning related to drugs or alcohol. In Appendix Table B.1 and Table B.2, the services are identified as "poisoning."

- **Medical services for other conditions 100 percent attributable to SA.** This category includes claims for other services with a primary diagnosis of a medical condition 100 percent attributable to SA. In Appendix Table B.1 and Table B.2, the services are identified as supplemental conditions.[15]

- **MH services with a secondary diagnosis of SA disorders.** This category includes services with a primary diagnosis of a mental disorder and a secondary diagnosis on the same claim from one of the first four groups above. We identified claims with a primary MH diagnosis based on the codes listed in Appendix Table B.3. Recognizing that the rate of co-morbidity between SA and MH disorders varies substantially by type of mental disorder, we divided mental disorders into several subgroups, as displayed in the table.

- **Other medical services with a secondary diagnosis of SA disorder.** This category includes claims with primary diagnoses not identified as MH disorders but with a secondary diagnosis from the first four categories above.

For individuals with an identified SA diagnosis, our initial extraction of claims from the IP, LT, and OT claims files included all claims with a primary or secondary diagnosis of SA, as identified by the first four categories. In addition, we extracted all claims for individuals with an identified SA diagnosis with a primary diagnosis of an MH disorder regardless of whether the claims included a secondary SA diagnosis. We also extracted all claims for emergency room (ER) services for enrollees with an identified SA diagnosis.

---

[14] Levit, K.R., C.A. Kassed, R.M. Coffey, T.L. Mark, D.R. McKusick, E. King, R. Vandivort, J. Buck, K. Ryan, and E. Stranges. *Projections of National Expenditures for Mental Health Services and Substance Abuse Treatment, 2004-2014*. SAMHSA Publication No. SMA 08-4326. Rockville, MD: SAMHSA, 2008.

[15] Bouchery, E.E., H.J. Harwood, J.J. Sacks, C.J. Simon, and R.D. Brewer. "Economic Costs of Excessive Alcohol Consumption in the United States, 2006."*American Journal of Preventive Medicine*, vol. 41, no. 5, November 2011, pp. 516-524; Harwood, H., D. Fountain, and G. Livermore. *The Economic Costs of Alcohol and Drug Abuse in the United States, 1992*. National Institute on Drug Abuse Publication Number 98-4327. Rockville, MD: National Institutes of Health, 1998.

b. Prescription Drug File

We used National Drug Codes (NDC) to identify SA-related prescriptions. In Appendix Table B.4, we present the SA-related codes. These services are categorized as core SA treatment services.

c. Person Summary File

We linked the MSIS-IDs of the Medicaid enrollees with identified SA diagnosis to the PS file to obtain additional information on eligibility and enrollment for these individuals. Also from the PS file, we obtained information on overall Medicaid expenditures by type of service for these individuals.

d. Classifying Services by Type

We classified SA treatment services into subgroups according to the following hierarchy:

- Services included in the IP, LT, and RX files were classified as inpatient hospital, long-term care, and prescription drug, respectively.

- Claims in the OT file with a procedure code included in Appendix Table B.5 were assigned to the category listed there.

- Claims in the OT file that do not include a procedure code listed in Appendix Table B.5 were categorized according to the MAX type of service categories.

We identified the services included in Appendix Table B.5 according to the *Substance Abuse HCPCS Code User's Guide: Unofficial Standard Definitions;*[16] Approved Healthcare Common Procedure Coding System (HCPCS) Codes and Modifiers Relating Substance Abuse Treatment, Mental Health, and Behavioral Health;[17] and SAMHSA's list of Good and Modern Benefits: Procedure Codes and Titles. We excluded codes for services provided to populations at large rather than to individual beneficiaries. For example, we decided that code H0025, behavioral health prevention education service (delivery of services to a target population to affect knowledge, attitude, and/or behavior), was not relevant to the analysis. We examined the list of codes that states report under psychiatric services (type of service = 53) and, as appropriate, added state-specific codes to the classification scheme for each state.

[16] National Association of State Alcohol and Drug Abuse Directors. *Substance Abuse HCPCS Code User's Guide: Unofficial Standard Definitions*. Washington, DC: NASADAD, 2007.

[17] National Association of State Alcohol and Drug Abuse Directors. *Approved HCPCS Codes and Modifiers Relating to Substance Abuse Treatment, Mental Health, and Behavioral Health*. Washington, DC: NASADAD, 2003.

In Section III.C.4, we identified enrollees with ER visits in the inpatient and other services files based on listing of a procedure code of 99281-99292 or a revenue center code of 450-459 or 981 on any claim. For other service file claims, we also used the place of service code equal to 23. ER expenditures were derived only from other service file claims, as the ER expenditures reported on inpatient claims are reported as inpatient expenditures.

B. Imputation of Expenditures for Enrollees and Services Not Represented in MAX Data

We identified 18 states in which accurate MAX data was available and SA treatment for all, or a substantial majority of beneficiaries, was covered by FFS Medicaid, so that expenditures can easily be classified and measured in FFS claims. However, the data to support development of estimates of expenditures on SA treatment services for the Medicaid population in: (1) states that cover such services under managed care plans; or (2) states that, for other reasons, lack FFS data on service use are substantially more limited. To allow flexibility in the set of services included in the national estimates for the population without FFS claims data, we produced aggregate estimates of total SA treatment users and expenditures by state for CY 2008 for the six alternative categories listed below. The services included in the categories are defined in Section II.A.

- Core SA treatment services;
- Services related to fetal drug or alcohol exposure;
- Services related to poisoning by drugs or alcohol;
- Medical services for other conditions 100 percent attributable to SA;
- MH services with a secondary diagnosis of SA disorder; and
- Other medical services with a secondary diagnosis of SA disorder.

Our method for estimating managed care SA treatment users and expenditures differed by state, depending on the extent to which state-specific information is available. We divided the states into three groups according to the level and type of available state-specific information. Some states fall into two groups if they have high managed care penetration in some basis-of-eligibility (BOE) groups but not in others. The three groups of states follow:

- **Managed care states with usable encounter data**. In these states, we imputed expenditures as the product of the number of service units provided in the state's managed care encounter data and the cost per service unit from its FFS data.

- **Other managed care states with less than 60 percent penetration in a given BOE group.** In these states, we imputed expenditures as the product of the number of managed care enrolled months and expenditures per enrolled month by eligibility/demographic group from the state's FFS enrollees.

- **Other managed care states with 60 percent or greater penetration in a given BOE group and FFS states with substantial FFS data quality issues.** In these states, we imputed expenditures as the product of the number of managed care enrolled months and expenditures per enrolled month by eligibility/demographic group from similar states' FFS enrollees.

Appendix Table F.9 displays the imputation method used for each of the 50 states and the District of Columbia. We discuss our method for each group below.

1. Managed Care States with Usable Encounter Data

Since a comprehensive analysis of MAX encounter data has not been conducted, we assessed which states are likely to have complete encounter data of usable quality. This assessment looked at states with at least 50 percent of enrollees in HMOs. We then looked at which of these states have HMO encounter data in MAX and made assessments based on knowledge gained by the project team from other work on MAX encounter data. Based on this preliminary review, we decided to conduct a more comprehensive analysis of SA-specific encounter data in Arizona, Indiana, Kansas, Maryland, Virginia, Washington, and Wisconsin.

Our review of SA-specific encounter data began with an assessment of whether all types of SA treatment services provided under a state's FFS program are reported within the encounter data for its managed care program. We then assessed whether the encounter claims reported to MAX represent a reasonable level of service for the population covered. This assessment entailed estimating whether an imputation based on the managed care encounter data would result in an estimate of expenditures per enrolled month 12 and over within the range observed in majority FFS states with high quality data reporting in the same category of SA treatment supply. We refer to these FFS states with high quality reporting as the predominantly FFS states. Finally, for states with a level of reporting within a reasonable range, we reviewed whether encounter data are present for all health plans providing care to the Medicaid population in the states. We summarize our findings as follows:

- In Arizona, encounters meeting the definition of a core SA treatment service based on primary diagnosis are included in the inpatient, long-term care, and other services files. Encounters from the other services file represent all service types provided under FFS Medicaid. The imputed estimate of expenditures per enrolled month 12 and older is $9.67--within the range of estimates for FFS medium-supply states. We reviewed the plan identification numbers observed and identified only one large general service managed care organization--Phoenix Health Plan, which did not report SA treatment encounters in the other services file. Expenditures for months enrolled in this plan were imputed based on FFS states experience.

- In Indiana, encounters meeting the definition of a core SA treatment service based on primary diagnosis are included in the inpatient, long-term care, and

other services files. The encounters in the other services file represent a range of services, including counseling/therapy, assessment/intervention/treatment planning, and medication management. However, imputed expenditures based on the encounter data are only $0.53 per enrolled month 12 and older, or 8 percent of the amount that otherwise would be imputed based on the number of enrolled months and observed expenditures in the Tier I and Tier II states. Based on this analysis, we found that the Indiana encounter data are not sufficiently complete for use.

- In Kansas, encounters meeting the definition of a core SA treatment service based on primary diagnosis are included in the inpatient, long-term care, and other services files. Encounters from the other services file represent all service types provided under FFS Medicaid. The imputed estimate of expenditures per enrolled month 12 and older is $12.17. This amount is within the range of FFS medium-supply states. Plan identification numbers were not reported correctly, so we could not assess the completeness of reporting by plan.

- In Maryland, encounters meeting the definition of a core SA treatment service based on primary diagnosis are included in the inpatient, long-term care, and other services files. However, the vast majority of claims identified in the other services file were classified as "other services: non-behavioral health." This implies that claims were not identified by the state as "type of service = 53 (behavioral health)," and the procedure codes on the claims do not appear in Appendix Table A.4. We did not continue with further analysis of Maryland's encounter data because the service classification did not parallel that of the FFS delivery system. Thus, substantial effort would be required to classify these services by type and find appropriate prices for each service category.

- In Virginia, encounters meeting the definition of a core SA treatment service based on primary diagnosis are included in the inpatient, long-term care, and other services files. However, several SA treatment service types represented in the FFS claims data are not included in the encounter claims, including residential treatment, treatment program services, and community support/case management services. The imputed estimate of expenditures per enrolled month 12 and older is $0.73. This amount is below the range of the estimates represented in the FFS states with low-supply. Based on this analysis, we found that the Virginia encounter data are not sufficiently complete for use.

- In Washington, encounters meeting the definition of core SA treatment services based on primary diagnosis are included in the inpatient and other services files. No SA treatment encounters were identified in the long-term care file. FFS SA treatment claims are included in this file. No residential treatment or treatment program service claims are included in the other services file; however, these service types are included in the FFS claims. The imputed estimate of expenditures per enrolled month 12 and older is $0.31. This amount is substantially below the range of the estimates represented in the FFS states with

high-supply. Based on this analysis, we found that the Washington encounter data are not sufficiently complete for use.

- In Wisconsin, encounters meeting the definition of core SA treatment services based on primary are included in both the inpatient, long-term care, and other services files. Encounter claims were identified in all SA treatment service types reported in the FFS claims for Wisconsin with the exception of residential care. In the NASADAD survey Wisconsin reported only providing limited inpatient residential treatment for detoxification. Since very few residential claims were identified in the FFS data and detoxification services can be provided in alternative care settings, the lack of residential treatment claims is possible with complete reporting. We classified Wisconsin as a low-supply state. The imputed estimate of SA expenditures based on the encounter data for Wisconsin is $2.66 per enrolled month 12 or older which is within the range of low-supply FFS states. We assessed the comprehensiveness of reporting by plan and found that there were numerous plan identification numbers for which capitation claims were reported, but for which encounter claims were not present. We could not determine whether these plans covered SA treatment services. Therefore we could not determine that the encounter data was sufficiently complete for use in our analysis, so we did not use the Wisconsin encounter data.

Thus, among the six states for which we reviewed the encounter data, we found that only Arizona and Kansas had sufficient quality encounter data for use in estimating SA treatment services. For these states, we estimated SA treatment expenditures under managed care for each eligibility group as a function of the following two components:

- **Units/claims of service by type of service (from managed care encounter data).** We divided encounter utilization into the following types of service categories: inpatient hospital, institutional long-term care (including specialty psychiatric and SA treatment hospitals), residential, intensive outpatient, intensive treatment program, treatment program service, counseling/therapy, detoxification, medication management, and other services (including collateral, case management, school-based services, early intervention, and crisis). For each service type, we then summed the number of units of service or claims provided by eligibility group, based on the encounter data. For inpatient hospital, institutional long-term care, and residential treatment, the unit of service is a treatment day. For other service types, each claim is a unit of service.

- **Mean expenditure per unit or claim service by type (from FFS).** In parallel to the classification of encounter claims by service type, we classified claims for services provided to FFS enrollees in the same state by type of service. We then estimated mean expenditure per unit (either treatment day or claim) for FFS enrollees.

We then multiplied the above components for each type of service and summed the results across service types to calculate the total SA treatment expenditures for the managed care population in these states for each eligibility/demographic group.

In addition to estimating total SA treatment expenditures, we estimated the number of SA treatment users. In those states with usable encounter data, we directly calculated the number of SA treatment users based on encounter claims data. Individuals with utilization represented in both encounter and FFS claims data were counted once as FFS users and again as managed care users.

In Arizona and Kansas, we used encounter data only to estimate expenditures related to core SA treatment services. To price each unit of service appropriately within each service type, each service category must include a homogeneous set of services. For core SA treatment services, we defined homogeneous categories of service as displayed in Appendix Table A.4. We did not use such an approach for the other categories of SA treatment (for example, costs related to other conditions 100 percent attributable to SA or non-MH services with a co-morbid SA diagnosis) because these categories include a variety of service types. We used the method described in Section II.B.3 to estimate expenditures for these other SA service categories for Arizona and Kansas.

2. Other Managed Care States with Less than 60 Percent Penetration

In states with managed care enrollment but a penetration rate of less than 60 percent, we estimated expenditures per enrolled month by eligibility/demographic category based on the state's FFS population for each type of SA treatment service. We then assumed that a state's managed care enrolled population with shared eligibility and demographic characteristics had the same expenditure level per enrolled month as the FFS population. We based the estimate on the following components:

- **Expenditure per enrolled month by SA treatment type and eligibility group (from FFS).** The estimate of the mean expenditure per enrolled month by SA treatment type was based on the FFS experience of Medicaid enrollees in the given state by eligibility/demographic group.

- **Number of managed care enrolled months by eligibility group.** The estimate of the number of months of enrollment in a capitated health plan covering SA treatment services was based on the eligibility/demographic group according to the MAX PS file data.

The above components were multiplied to calculate total SA treatment expenditures for the managed care population in each eligibility/demographic category with less than 60 percent managed care penetration.

Similarly, to estimate the number of SA treatment users, we estimated the mean number of users per enrolled month for each eligibility group in the areas of the state

with FFS experience. We then multiplied the estimate by the number of managed care enrolled months in each eligibility group to estimate the number of SA treatment users in managed care in each eligibility group.

3. Other Managed Care States with Penetration 60 Percent or Greater

In contrast to the states in the previous two sections, for which usable encounter data or state-specific FFS experience is available, in states without usable encounter data and high managed care penetration, the small share of the population not enrolled in managed care is likely to exhibit expenditure levels distinct from those of managed care enrollees. Therefore, for such states, we imputed managed care enrollee expenditures using average expenditures from states with high shares of FFS enrollment and no significant data quality issues. We identified 18 states in which the majority of enrollees received SA treatment services through FFS and the state had no significant data quality issues. We refer to these states as the predominantly FFS states.

Using a linear regression model, we assessed the relationship of SA treatment expenditures per enrolled month in these states to several explanatory variables, including whether the enrollee lived in a metropolitan area; state wage indices for SA treatment professionals; indicators of the types of SA services that, according to the comments of a state Medicaid program representative responding to the NASADAD survey, the state provides to Medicaid enrollees;[18] a Medicaid fee index;[19] the supply of specialty SA treatment services per population; eligibility group (disabled and non-disabled); and age/gender. We found the largest differences in expenditures were explained by age/gender, eligibility group, and the supply of specialty SA treatment services provided per population in the state. In addition, the direction of the impact of these three sets of explanatory variables was robust to changes in specification. In contrast, the other explanatory variables produced a small impact on expenditures or did not consistently affect expenditures in the manner hypothesized. Therefore, we imputed expenditures to states with high managed care penetration using enrollee characteristics and the states' supply of SA treatment services only.

Measurement of the supply of specialty SA treatment services was based on the number of clients served in specialty SA treatment facilities in 2008, as identified in SAMHSA's National Survey of SA Treatment Services. We estimated the number of clients served per 1,000 population by dividing the total number of SA treatment clients in care on March 31, 2008 in all settings by the Census Bureau's estimate of state population. Based on the state-level estimate of clients served in a specialty SA treatment setting per population, we divided the 50 states and the District of Columbia into three categories. States with a supply above the 75th percentile (more than five

[18] National Association of State Alcohol and Drug Abuse Directors. *NASADAD Inquiry--State Medicaid and SCHIP Coverage of Substance Abuse Services*. Washington, DC: NASADAD, November 2010.

[19] Zuckerman, Stephen, Aimee Williams, and Karen Stockley. "Medicaid Physician Fees Grew By More Than 15 Percent From 2003 to 2008, Narrowing Gap With Medicare Physician Payment Rates." *Health Affairs*, April 2009. Available at http://www.kff.org/medicaid/kcmu042809oth.cfm. Accessed July 27, 2012.

clients per 1,000 population) were deemed “high”; those with a supply below the 25th percentile (fewer than three clients per 1,000 population) were deemed “low.” Other states were deemed as “medium” supply. These categories capture a substantial portion of the variation in state Medicaid policy toward provision of SA treatment under Medicaid.

We used the supply categories to group the predominantly FFS states (Table A.4).

TABLE A.4. SA Treatment Supply Categories for the 18 FFS States

Specialty SA Clients per 1,000 Population	Predominantly FFS States
Low -- Fewer than 3	AL, ID, MS, AR, LA
Medium -- 3 to 5	IL, KY, MO, MT, NH, NC, ND, OK, SD, SC
High -- More than 5	CT, VT, WY

Next, we grouped the Medicaid enrollees in states in the same supply category based on eligibility group and demographics. We then calculated the following components of the expenditure estimate:

- **Mean expenditure per enrolled month by SA treatment service type**. SA treatment supply, and eligibility/demographic group (from FFS). We developed non-parametric estimates of average expenditures and users per enrolled month for each supply category for cells defined by age/gender/disability status.

- **Number of managed care enrolled months by eligibility/demographic group.** We estimated the number of months of enrollment in a capitated health plan covering SA treatment services by eligibility/demographic group based on the MAX PS file data.

We multiplied the components to produce our estimate of the total SA treatment expenditures for the managed care population in each state by SA service type and eligibility/demographic group. We then summed the estimates for each eligibility/ demographic group to produce the total estimate of SA treatment spending by service type for the managed care population in the state reported in Appendix C.

To estimate the number of SA treatment users in a given managed care state, we similarly estimated the mean number of users per enrolled month for each SA treatment service type by eligibility/demographic group in the 18 FFS states in each service supply category. We then multiplied the number of managed care enrolled months in each eligibility/demographic group by the mean users per enrolled month in the eligibility/demographic group in the FFS states in the same SA service supply category. Next, we summed the products across the eligibility/demographic groups in the state to produce the estimate of managed care users.

In Appendix Tables F.1 through F.8, we report the estimated mean expenditures and users per enrolled month by eligibility/demographic group in the predominantly FFS states by level of SA treatment supply in the state. The SA treatment supply groups

(Low, Medium, and High) are those reflected above in Table A.4. Table F.1 and Table F.2 contain this information for core SA treatment services. Tables F.3 through F.8 contain this information for non-core SA treatment categories. In addition to the columns for estimated mean expenditures and users per enrolled month, Tables F.3 through F.8 include additional columns for users labels "unduplicated." The averages in the unduplicated columns include only users who were not represented in a prior table. The averages from these columns were used to develop unduplicated counts of individuals using SA treatment services across all service types.

C. Estimating Federal Share

We calculated the federal share of each state's SA treatment expenditures in 2008 based on its federal medical assistance percentage (FMAP). The Kaiser Family Foundation provides an FMAP time series from 2004 to 2011, with links to corresponding *Federal Register* notices.[20]

III. METHODS FOR PROJECTING 2008 ESTIMATES TO FY 2011

We projected the fiscal year (FY) 2008 estimates to FY 2011 based primarily on information reported by state Medicaid programs in CMS-64. The CMS-64 reports summarize annual Medicaid expenditures for each state. Information from the forms is currently available through FY 2010 for each state by service category.[21] We used the data to project CY 2008 MAX data to FY 2011. SA treatment costs for each state and category of service (for example, inpatient, outpatient, prescription drugs) were projected to FY 2011 based on the annual change in overall Medicaid expenditures for the state among similar services between FY 2008 and FY 2010. Given that the rate of growth in SA treatment expenditures (as identified in the SSE) historically has fallen below that of general health care expenditures, as identified in the CMS National Health Expenditure Accounts (NHEA), we estimated the SA treatment spending trend as only 98 percent of the trend observed for overall Medicaid program spending in each category.

We used the following steps to develop projections through FY 2011 by using CMS-64:

- **Step 1--Map service categories.** We mapped the service types available in CMS-64 reports as closely as possible to the SA treatment categories developed from MAX data for 2008.

- **Step 2--Estimate overall Medicaid expenditure trends.** We estimated the overall Medicaid expenditure trend for each state for each service category from

[20] Available at http://www.statehealthfacts.org/comparetable.jsp?ind=184&cat=4. Accessed July 27, 2012.

[21] Available at https://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidBudgetExpendSystem/CMS-64-Quarterly-Expense-Report.html. Accessed July 26, 2012.

FY 2008 through FY 2009 and from FY 2009 through FY 2011 based on the CMS-64 reports. In rare cases, where trends for a particular service category indicated more than a 35 percent increase or decrease, the service category-specific trend was replaced by the overall trend in state Medicaid spending.

- **Step 3--Adjust overall Medicaid general health expenditure trends for the historical difference in growth between SA treatment and general health care spending.** Between 1986 and 2005, the estimated trend in Medicaid SA treatment spending based on the SSE was 98 percent of NHEA's estimated trend in Medicaid spending. Given that the rate of growth in SA treatment expenditures (as identified in the SSE) historically has fallen below that of general health care expenditures (as identified in the NHEA), we estimated the SA treatment spending trend as only 98 percent of the trend observed for overall Medicaid program spending in each category.

- **Step 4--Project the MAX 2008 estimates to FY 2011.** With the 2008 MAX data representing a CY, we applied 9 months of each state's FY 2008 through FY 2009 trend and 24 months of the FY 2009 through FY 2010 trend, multiplying the growth rates by a factor of 0.98 to reflect the historically slower growth of SA treatment expenditures. We used 24 months of the FY 2009 through FY 2010 trend on the assumption that the trend in expenditures from FY 2010 to FY 2011 will be the same as the previous year's trend. The result is a set of estimates of FY 2011 expenditures for each state by service type.

APPENDIX B. DIAGNOSIS CODES

TABLE B.1. Alcohol Abuse Diagnosis Codes		
ICD-9-CM	**Description**	**Category of Service**
291	Alcoholic psychoses	Core
2910	Delirium tremens	Core
2911	Alcohol amnestic syndrome	Core
2912	Alcoholic dementia NEC	Core
2913	Alcohol hallucinosis	Core
2914	Pathologic alcohol intoxication	Core
2915	Alcoholic jealousy	Core
2918	Alcoholic psychosis NEC	Core
2919	Alcoholic psychosis NOS	Core
303	Alcohol dependence syndrome	Core
3030	Acute alcohol intoxication	Core
3039	Alcohol dependency NEC/NOS	Core
3050	Alcohol abuse	Core
9800	Toxic effects of ethyl alcohol	Poisoning
9801	Toxic effects of methyl alcohol	Poisoning
E8600	Accidental poisoning by alcoholic beverages	Poisoning
E8601	Accidental poisoning by ethyl alcohol	Poisoning
E8602	Accidental poisoning by methyl alcohol	Poisoning
E8609	Accidental poisoning by unspecified alcohol	Poisoning
7903	Excessive blood level of alcohol	Poisoning
3575	Alcoholic polyneuropathy	Supplemental
4255	Alcoholic cardiomyopathy	Supplemental
5353	Alcoholic gastritis	Supplemental
5710	Alcoholic fatty liver	Supplemental
5711	Acute alcoholic hepatitis	Supplemental
5712	Alcoholic cirrhosis of liver	Supplemental
5713	Alcoholic liver damage, unspecified	Supplemental
6554	Suspected damage to fetus from alcohol addiction	Fetus
76071	Fetal alcohol syndrome	Fetus

TABLE B.2. Drug Abuse Diagnosis Codes		
ICD-9-CM	**Description**	**Category of Service**
292	Drug psychoses	Core
2920	Drug withdrawal syndrome	Core
2921	Drug paranoid/hallucinosis	Core
2922	Pathologic drug intoxication	Core
2928	Other drug mental disease	Core
2929	Drug mental disorder NOS	Core
304	Drug dependence	Core
3040	Opioid type dependence	Core
3041	Barbiturate dependence	Core
3042	Cocaine dependence	Core
3043	Cannabis dependence	Core
3044	Amphetamine dependence	Core
3045	Hallucinogen dependence	Core
3046	Drug dependence NEC	Core
3047	Opioid/other drug dependence	Core
3048	Combinations of drug dependence NEC	Core
3049	Drug dependence NOS	Core
305	Nondependent drug abuse	Core
3052	Cannabis abuse	Core
3053	Hallucinogen abuse	Core
3054	Barbiturate abuse	Core
3055	Opioid abuse	Core
3056	Cocaine abuse	Core
3057	Amphetamine abuse	Core
3058	Antidepressant abuse	Core
3059	Drug abuse NEC/NOS	Core
6483	Drug dependence in pregnancy	Fetus
357.6	Polyneuropathy due to drugs	Supplemental
6555	Suspected damage to fetus from drugs	Fetus
76072	Fetus affected by narcotics	Fetus
76073	Fetus affected by hallucinogenic agents	Fetus
76075	Fetus affected by cocaine	Fetus
7795	Drug withdrawal symptoms in newborns	Fetus
965	Poisoning related to narcotics	Poisoning
967	Poisoning by sedatives and hypnotics	Poisoning
968	Poisoning by central nervous system muscle tone depressants	Poisoning
969	Poisoning by psychotropic agents	Poisoning
970	Poisoning by central nervous system stimulants	Poisoning
E850-E858	Accidental poisoning by drugs, medicaments, and biologicals	Poisoning
E863	Accidental poisoning by agricultural and horticultural chemical & pharmaceutical preparations other than plant food & fertilizer	Poisoning
E950.0-E950.6	Suicide & self-inflicted injury by drugs or medicinal substances	Poisoning

TABLE B.3. MH Diagnosis Codes		
ICD-9-CM	**Description**	**Analytical Classification**
295	Schizophrenic disorders	Schizophrenia
2950	Simple schizophrenia	Schizophrenia
2951	Hebephrenia	Schizophrenia
2952	Catatonic schizophrenia	Schizophrenia
2953	Paranoid schizophrenia	Schizophrenia
2954	Acute schizophrenic episode	Schizophrenia
2955	Latent schizophrenia	Schizophrenia
2956	Residual schizophrenia	Schizophrenia
2957	Schizoaffective type	Schizophrenia
2958	Schizophrenia NEC	Schizophrenia
2959	Schizophrenia NOS	Schizophrenia
296	Affective psychoses	Other affective disorder
2960	Manic disorder, single episode	Bipolar I
2961	Manic disorder, recurrent episode	Bipolar I
2962x (x = 3 or 4)	Depressive psychosis, single episode, severe	Major depression, severe
2962x (x ne 3 or 4)	Depressive psychosis, single episode, non-severe	Major depression, non-severe
2963x (x = 3 or 4)	Depressive psychosis, recurrent episode, severe	Major depression, severe
2963x (x ne 3 or 4)	Depressive psychosis, recurrent episode, non-severe	Major depression, non-severe
2964	Bipolar affective, manic	Bipolar I
2965	Bipolar affective, depressive	Bipolar I
2966	Bipolar affective, mixed	Bipolar I
2967	Bipolar affective NOS	Bipolar I
2968	Manic-depressive NEC/NOS	Other or unspecified bipolar
2969	Affective psychoses NEC/NOS	Other affective disorder
297	Paranoid states	Delusional disorder
2970	Paranoid state, simple	Delusional disorder
2971	Paranoia	Delusional disorder
2972	Paraphrenia	Delusional disorder
2973	Shared paranoid disorder	Delusional disorder
2978	Paranoid states NEC	Delusional disorder
2979	Paranoid state NOS	Delusional disorder
298	Other nonorganic psychoses	Other MH diagnosis
2980	Reactive depressive psychosis	Other MH diagnosis
2981	Excitative-type psychosis	Other MH diagnosis
2982	Reactive confusion	Other MH diagnosis
2983	Acute paranoid reaction	Other MH diagnosis
2984	Psychogenic paranoid psychosis	Other MH diagnosis
2988	Reactive psychosis NEC/NOS	Other MH diagnosis
2989	Psychosis NOS	Other MH diagnosis
299	Psychoses of childhood	Other MH diagnosis
2990	Infantile autism	Other MH diagnosis
2991	Disintegrative psychosis	Other MH diagnosis
2998	Early childhood psychoses NEC	Other MH diagnosis
2999	Early childhood psychosis NOS	Other MH diagnosis
300	Neurotic disorders	Anxiety disorder
3000	Anxiety states	Anxiety disorder
3001	Hysteria	Anxiety disorder

TABLE B.3 (*continued*)		
ICD-9-CM	**Description**	**Analytical Classification**
3002	Phobic disorders	Anxiety disorder
3003	Obsessive-compulsive disorder	Anxiety disorder
3004	Neurotic depression	Anxiety disorder
3005	Neurasthenia	Anxiety disorder
3006	Depersonalization syndrome	Anxiety disorder
3007	Hypochondriasis	Anxiety disorder
3008	Neurotic disorders NEC	Anxiety disorder
3009	Neurotic disorder NOS	Anxiety disorder
301	Personality disorders	Other personality disorder
3010	Paranoid personality	Other personality disorder
3011	Affective personality	Other personality disorder
3012	Schizoid personality	Other personality disorder
3013	Explosive personality	Other personality disorder
3014	Compulsive personality	Other personality disorder
3015	Histrionic personality	Other personality disorder
3016	Dependent personality	Other personality disorder
3017	Antisocial personality	Antisocial personality disorder
3018	Other personality disorder	Other personality disorder
3019	Personality disorder NOS	Other personality disorder
302	Sexual disorders	Other MH diagnosis
3020	Ego-dystonic homosexuality	Other MH diagnosis
3021	Zoophilia	Other MH diagnosis
3022	Pedophilia	Other MH diagnosis
3023	Transvestism	Other MH diagnosis
3024	Exhibitionism	Other MH diagnosis
3025	Trans-sexualism	Other MH diagnosis
3026	Psychosexual identity disorder	Other MH diagnosis
3027	Psychosexual dysfunction	Other MH diagnosis
3028	Psychosexual disorder NEC	Other MH diagnosis
3029	Psychosexual disorder NOS	Other MH diagnosis
306	Psychophysiologic disease	Other MH diagnosis
3060	Psychogenic musculoskeletal disease	Other MH diagnosis
3061	Psychogenic respiratory disease	Other MH diagnosis
3062	Psychogenic cardiovascular disease	Other MH diagnosis
3063	Psychogenic skin disease	Other MH diagnosis
3064	Psychogenic GI disease	Other MH diagnosis
3065	Psychogenic GU disease	Other MH diagnosis
3066	Psychogenic endocrine disease	Other MH diagnosis
3067	Psychogenic sensory disease	Other MH diagnosis
3068	Psychogenic disorder NEC	Other MH diagnosis
3069	Psychogenic disorder NOS	Other MH diagnosis
307	Special symptom NEC	Other MH diagnosis
3070	Stammering and stuttering	Other MH diagnosis
3071	Anorexia nervosa	Other MH diagnosis
3072	Tics	Other MH diagnosis
3073	Stereotyped movements	Other MH diagnosis
3074	Nonorganic sleep disorder	Other MH diagnosis
3075	Eating disorders NEC/NOS	Other MH diagnosis
3076	Enuresis	Other MH diagnosis
3077	Encopresis	Other MH diagnosis
3078	Psychalgia	Other MH diagnosis

TABLE B.3 (*continued*)		
ICD-9-CM	**Description**	**Analytical Classification**
3079	Special symptom NEC/NOS	Other MH diagnosis
308	Acute reaction to stress	Acute reaction to stress
3080	Stress reaction, emotional	Acute reaction to stress
3081	Stress reaction, fugue	Acute reaction to stress
3082	Stress reaction, psychomotor	Acute reaction to stress
3083	Acute stress reaction NEC	Acute reaction to stress
3084	Stress reaction, mixed disorder	Acute reaction to stress
3089	Acute stress reaction NOS	Acute reaction to stress
309	Adjustment reaction	Adjustment reaction
3090	Brief depressive reaction	Adjustment reaction
3091	Prolonged depressive reaction	Adjustment reaction
3092	Adjustment reaction/other emotion	Adjustment reaction
3093	Adjustment reaction--conduct disorder	Adjustment reaction
3094	Adjustment reaction--emotion/conduct	Adjustment reaction
3098	Other adjustment reaction	Adjustment reaction
3099	Adjustment reaction NOS	Adjustment reaction
310	Non-psychotic brain syndrome	Other MH diagnosis
3100	Frontal lobe syndrome	Other MH diagnosis
3101	Organic personality syndrome	Other MH diagnosis
3102	Postconcussion syndrome	Other MH diagnosis
3108	Non-psychotic brain syndrome NEC	Other MH diagnosis
3109	Non-psychotic brain syndrome NOS	Other MH diagnosis
311	Depressive disorder NEC	Other depressive disorder
312	Conduct disturbance NEC	Conduct disorder
3120	Unsocialized aggression	Conduct disorder
3121	Unsocialized, unaggressive	Conduct disorder
3122	Socialized conduct disorder	Conduct disorder
3123	Impulse control disorder NEC	Conduct disorder
3124	Mixed disturbance conduct/emotion	Conduct disorder
3128	Other conduct disturbance	Conduct disorder
3129	Conduct disturbance NOS	Conduct disorder
313	Emotional disorder child/adolescent	Other MH diagnosis
3130	Overanxious disorder	Other MH diagnosis
3131	Misery and unhappiness disorder	Other MH diagnosis
3132	Sensitivity and withdrawal	Other MH diagnosis
3133	Relationship problems	Other MH diagnosis
3138	Other emotional disturbance, child	Other MH diagnosis
3139	Emotional disturbance, child, NOS	Other MH diagnosis
314	Hyperkinetic syndrome	Other MH diagnosis
3140	Attention deficit disorder	Other MH diagnosis
3141	Hyperkinetic with developmental delay	Other MH diagnosis
3142	Hyperkinetic conduct disorder	Other MH diagnosis
3148	Other hyperkinetic syndrome	Other MH diagnosis
3149	Hyperkinetic syndrome NOS	Other MH diagnosis
6484	Mental disorders in pregnancy	Other MH diagnosis
V402	Mental problems NEC	MH V-code
V403	Behavioral problems NEC	MH V-code
V409	Mental/behavior problems NOS	MH V-code
V61	Other family circumstances	MH V-code
V610	Family disruption	MH V-code
V611	Marital problems	MH V-code

TABLE B.3 (*continued*)		
ICD-9-CM	**Description**	**Analytical Classification**
V612	Parent-child problems	MH V-code
V613	Problem with aged parent	MH V-code
V614	Health problem in family	MH V-code
V615	Multi-parity	MH V-code
V616	Illegitimate pregnancy	MH V-code
V617	Unwanted pregnancy NEC	MH V-code
V618	Family circumstances NEC	MH V-code
V619	Family circumstance NOS	MH V-code
V663	Mental disorder convalescence	MH V-code
V673	Psychiatric followup	MH V-code
V701	Psychiatric exam--authority required	MH V-code
V702	General psychiatric exam NEC	MH V-code
V710	Observation for mental conditions	MH V-code
E950.7-E950.9, E951-E959	Suicide & self-inflicted injury by cause other than drugs or medicinal substances	Suicide & self-inflicted injury
ne = not equal.		

TABLE B.4. Prescription Drug Code	
Drug Name	**NDC Code**
Alcoholism Medications	
Campral	0456-3330
Naltrexone HCl (Revia)	51285-275, 0555-0902, 52152-105, 185-39, 406-1170, 16590-897, 16729-81, 47335-326, 60793-430, 60793-431, 60793-433, 60793-434, 60793-435, 60793-437
Vivitrol	63459-300, 65757-300, 65757-301
Disulfiram (Antabuse)	51285-523, 51285-524, 64980-171, 64980-172, 65473-706
Opiate and Heroin Addition Medications	
Subutex	12496-1310, 12496-1278
Suboxone	12496-1202, 12496-1208, 54868-5707, 54868-5750, 63629-4028, 63629-4034
Vivitrol	65757-300, 65757-301
Naltrexone HCl (Revia)	See above
Nalmefene Hydrochloride (Revex)	10019-315, 10019-311, 11098-311
Other Drug Abuse Medications	
Naloxone Hydrochloride (Narcan)	63481-365, 63481-368, 63481-359, 0409-1212, 0409-1215, 0409-1219, 63481-358, 63481-3771, 52584-469, 52584-782, 16590-556, 63739-463, 54868-2062,54868-6259, 60429-570, 68387-531, 548-1469, 548-3369, 43063-142, 43386-680, 52584-212, 52584-215, 409-1782
SOURCE: Food and Drug Administration's NDC data base, Drugs.com, and rxlist.com. **NOTE**: NDCs are for the listed drug and any generic equivalent.	

TABLE B.5. Classification of SA/MH Treatment Services by Type			
Types of SA Treatment Services	**SA-Specific Codes**	**Other Behavioral Health Codes[a]**	**Other Types of Identifiers**
ER care	NA	NA	OT file claim with place of service code = 23
Inpatient care	H0008, H0009		
Residential treatment	H0010, H0011	H0017, H0018, H0019, S5145, S5146, T2048	
Intensive treatment program	H0015, S9475, H2036,	S9480, S9485, H0035, T2034	
Treatment program service	H2035, S0201	H2012	
Individual/group psychotherapy		90804, 90805, 90807, 90808, 90809, 90810, 90811, 90812, 90813, 90814, 90815, 90816, 90817, 90818, 90819, 90821, 90822, 90823, 90824, 90826, 90827, 90828, 90829, 90875, 90876, 90846, 90847, 90849, 90853, 90857, G0410, G0411	
Other assessment/ screening/intervention/ evaluation/prevention/ treatment planning	H0001, H0003, H0022, H0028, H0049, H0050, H0007, H0048, H0026, G0396, G0397, T1007, 99408	H0030, H2011, S9484, 90801, S9083, H0002, H1011, 96150, 96151, 90802, H0031, T1001, H1000, 90889, 90801, 90885, 96101, 96102, 96103, 96100, 96125, 99456, S9446, H1003, H0023, H0032, 00100, G8405 G8404, 96115, 96116, 96117, T2010, T2011, T1023, 96105, 96111, 96110, 96125	
Other medication management	H0020, J0592, J1230, J3490, J2315, J8499, S0109	90862, H0034, H2010, H0033, M0064, T1502	
Other counseling/therapy	H0005, T1006	H0004, 90806, 90845, 90870, 90871, 90880, 96152, 99510, H2032, G0176, 96153, 96154, 96155	
Other case management or community supports	H0006, T1007, T1012, T1009	T1016, T1017, H0037, H2015, H2016, H2021, G0177, S5110, H5111, T1027, H2014, H2017, H2018, H2027, H0025, H2023, H2024, H2025, H2026, H2019, H2020, S0280, S0281, 90882, H0039, H0040, T1024, H1004, H0036, H2022, S9482, H2033 H0038, T2040, T2041, G0409	
Detoxification	H0012, H0013, H0014		
Housing (including halfway house)	H2034	H0043, H0044	
Other	H0016, H0047, T1010, T1011, T1013, T2025, H2037	90899	

NA = not available.

a. These behavioral health codes will be classified as SA treatment when they are associated with a primary SA diagnosis.

APPENDIX C. STATE LEVEL ESTIMATES, CY 2008

TABLE C.1a. Medicaid SA Treatment Users and Expenditures, DY 2008 Core SA Treatment Services										
State	SA Treatment Users					Total Expenditures (in $ thousands)				
	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care
Alabama	8,493	8,493	100	0	0	8,310	8,310	100	0	0
Alaska	3,175	3,175	100	0	0	6,757	6,757	100	0	0
Arizona	23,162	3,505	15	19,657	85	142,853	34,522	24	108,331	76
Arkansas	3,537	3,537	100	0	0	4,960	4,960	100	0	0
California	134,099	78,395	58	55,704	42	316,631	186,448	59	130,183	41
Colorado	21,432	7,307	34	14,125	66	60,183	14,981	25	45,202	75
Connecticut	17,916	17,284	96	632	4	54,980	53,444	97	1,537	3
Delaware	4,186	1,726	41	2,460	59	11,438	6,188	54	5,251	46
District of Columbia	5,206	2,524	48	2,682	52	12,910	5,648	44	7,262	56
Florida	29,334	19,390	66	9,944	34	40,969	27,198	66	13,772	34
Georgia	14,561	9,664	66	4,897	34	20,896	13,661	65	7,235	35
Hawaii	5,261	2,920	56	2,341	44	8,344	4,452	53	3,892	47
Idaho	1,841	1,841	100	0	0	2,932	2,932	100	0	0
Illinois	34,142	32,963	97	1,179	3	111,204	107,452	97	3,751	3
Indiana	18,501	10,389	56	8,112	44	33,133	13,613	41	19,520	59
Iowa	5,860	2,819	48	3,041	52	9,983	3,135	31	6,848	69
Kansas	5,665	2,255	40	3,410	60	16,960	2,823	17	14,137	83
Kentucky	12,889	12,694	98	195	2	36,953	35,384	96	1,569	4
Louisiana	7,540	7,540	100	0	0	11,681	11,681	100	0	0
Maine	12,966	12,966	100	0	0	50,581	50,581	100	0	0
Maryland	22,766	5,759	25	17,007	75	67,462	13,535	20	53,928	80
Massachusetts	49,135	36,482	74	12,653	26	99,141	74,133	75	25,009	25
Michigan	32,558	9,836	30	22,722	70	65,736	7,908	12	57,828	88
Minnesota	16,732	10,731	64	6,001	36	53,818	38,119	71	15,699	29
Mississippi	8,388	8,388	100	0	0	20,132	20,132	100	0	0
Missouri	26,469	17,163	65	9,306	35	76,198	44,279	58	31,919	42
Montana	2,692	2,692	100	0	0	6,137	6,137	100	0	0
Nebraska	5,497	4,349	79	1,148	21	17,951	15,681	87	2,270	13
Nevada	3,408	1,770	52	1,638	48	8,267	3,539	43	4,728	57
New Hampshire	3,339	3,339	100	0	0	7,066	7,066	100	0	0
New Jersey	28,208	14,324	51	13,884	49	73,139	31,604	43	41,535	57
New Mexico	10,245	1,876	18	8,369	82	28,712	2,093	7	26,618	93
New York	246,207	162,521	66	83,686	34	1,137,298	751,323	66	385,975	34
North Carolina	25,568	25,507	100	61	0	47,974	47,771	100	203	0
North Dakota	1,736	1,736	100	0	0	4,281	4,281	100	0	0
Ohio	75,981	41,230	54	34,751	46	183,778	93,399	51	90,380	49
Oklahoma	6,366	6,366	100	0	0	9,107	9,107	100	0	0
Oregon	5,653	5,625	100	28	0	40,556	8,703	21	31,853	79
Pennsylvania	47,470	17,662	37	29,808	63	103,010	14,639	14	88,371	86
Rhode Island	7,209	4,272	59	2,937	41	20,105	11,497	57	8,608	43
South Carolina	12,353	9,995	81	2,358	19	22,775	17,923	79	4,852	21

TABLE C.1a (*continued*)										
State	SA Treatment Users					Total Expenditures (in $ thousands)				
	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care
South Dakota	1,398	1,398	100	0	0	5,965	5,965	100	0	0
Tennessee	9,930	6,673	67	3,257	33	15,729	9,081	58	6,648	42
Texas	17,077	12,159	71	4,918	29	22,307	11,180	50	11,127	50
Utah	4,506	4,506	100	0	0	8,838	8,838	100	0	0
Vermont	8,375	8,375	100	0	0	30,133	30,133	100	0	0
Virginia	9,329	5,285	57	4,044	43	18,529	11,008	59	7,521	41
Washington	50,986	29,753	58	21,233	42	143,779	55,719	39	88,060	61
West Virginia	10,925	7,051	65	3,874	35	23,897	12,842	54	11,055	46
Wisconsin	16,704	12,417	74	4,287	26	40,492	30,206	75	10,286	25
Wyoming	1,271	1,271	100	0	0	1,981	1,981	100	0	0
Total	**1,138,247**	**721,898**	**63**	**416,349**	**37**	**3,366,952**	**1,993,990**	**59**	**1,372,962**	**41**

TABLE C.1b. State and Federal Share of Medicaid SA Expenditures Core SA Treatment Services, CY 2008				
State	Total Expenditures (in $ thousands)		% Attributable to State	% Attributable to Federal
	Total State	Total Federal		
Alabama	2,503	5,806	30	70
Alaska	3,106	3,651	46	54
Arizona	45,138	97,715	32	68
Arkansas	1,265	3,695	26	74
California	149,141	167,490	47	53
Colorado	28,771	31,413	48	52
Connecticut	26,090	28,891	47	53
Delaware	5,428	6,010	47	53
District of Columbia	3,625	9,285	28	72
Florida	16,579	24,390	40	60
Georgia	7,171	13,726	34	66
Hawaii	3,429	4,915	41	59
Idaho	821	2,111	28	72
Illinois	52,688	58,515	47	53
Indiana	11,489	21,644	35	65
Iowa	3,644	6,339	36	64
Kansas	6,590	10,370	39	61
Kentucky	10,426	26,527	28	72
Louisiana	2,996	8,685	26	74
Maine	17,409	33,172	34	66
Maryland	32,250	35,212	48	52
Massachusetts	47,394	51,747	48	52
Michigan	25,657	40,079	39	61
Minnesota	25,538	28,280	47	53
Mississippi	4,404	15,728	22	78
Missouri	26,955	49,243	35	65
Montana	1,812	4,325	30	70
Nebraska	7,189	10,761	40	60
Nevada	3,682	4,585	45	55
New Hampshire	3,424	3,643	48	52
New Jersey	34,964	38,175	48	52
New Mexico	7,870	20,842	27	73
New York	543,685	593,613	48	52
North Carolina	16,107	31,867	34	66
North Dakota	1,485	2,795	35	65
Ohio	67,713	116,065	37	63
Oklahoma	2,818	6,289	31	69
Oregon	14,787	25,769	36	64
Pennsylvania	44,992	58,018	44	56
Rhode Island	8,976	11,129	45	55
South Carolina	6,382	16,393	28	72
South Dakota	2,254	3,711	38	62
Tennessee	5,333	10,396	34	66
Texas	8,345	13,961	37	63
Utah	2,370	6,468	27	73
Vermont	11,691	18,441	39	61
Virginia	8,858	9,671	48	52
Washington	66,577	77,202	46	54
West Virginia	5,783	18,114	24	76
Wisconsin	16,355	24,137	40	60
Wyoming	960	1,021	48	52
Total	**1,454,920**	**1,912,032**	**43**	**57**

TABLE C.2a. Medicaid SA Treatment Users and Expenditures, FY 2008 Services Related to Fetal Drug or Alcohol Exposure and Poisoning										
State	SA Treatment Users					Total Expenditures (in $ thousands)				
	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care
Alabama	1,668	1,668	100	0	0	585	585	100	0	0
Alaska	335	335	100	0	0	805	805	100	0	0
Arizona	1,802	291	16	1,511	84	1,838	436	24	1,402	76
Arkansas	343	343	100	0	0	285	285	100	0	0
California	6,606	2,414	37	4,192	63	5,200	1,707	33	3,493	67
Colorado	1,210	425	35	785	65	1,833	844	46	989	54
Connecticut	282	259	92	23	8	527	473	90	54	10
Delaware	254	64	25	190	75	206	40	20	165	80
District of Columbia	286	31	11	255	89	309	106	34	203	66
Florida	5,911	3,988	67	1,923	33	13,489	9,251	69	4,238	31
Georgia	1,682	645	38	1,037	62	1,230	397	32	833	68
Hawaii	251	40	16	211	84	189	8	4	182	96
Idaho	155	155	100	0	0	148	148	100	0	0
Illinois	1,780	1,673	94	107	6	1,249	1,183	95	66	5
Indiana	1,397	498	36	899	64	1,269	492	39	777	61
Iowa	652	290	44	362	56	664	328	49	336	51
Kansas	402	83	21	319	79	496	175	35	321	65
Kentucky	2,639	2,639	100	0	0	5,601	5,601	100	0	0
Louisiana	803	803	100	0	0	494	494	100	0	0
Maine	464	464	100	0	0	550	550	100	0	0
Maryland	1,266	307	24	959	76	2,401	1,248	52	1,153	48
Massachusetts	2,295	1,008	44	1,287	56	4,983	1,876	38	3,106	62
Michigan	2,309	764	33	1,545	67	1,731	409	24	1,321	76
Minnesota	1,563	999	64	564	36	9,504	8,931	94	573	6
Mississippi	561	561	100	0	0	313	313	100	0	0
Missouri	574	289	50	285	50	340	212	62	128	38
Montana	152	152	100	0	0	96	96	100	0	0
Nebraska	313	113	36	200	64	266	80	30	186	70
Nevada	413	220	53	193	47	457	201	44	256	56
New Hampshire	172	172	100	0	0	635	635	100	0	0
New Jersey	1,482	673	45	809	55	2,862	1,629	57	1,233	43
New Mexico	682	178	26	504	74	1,000	413	41	588	59
New York	4,867	1,160	24	3,707	76	6,464	1,446	22	5,018	78
North Carolina	1,612	1,612	100	0	0	896	896	100	0	0
North Dakota	23	23	100	0	0	16	16	100	0	0
Ohio	2,481	676	27	1,805	73	2,890	1,157	40	1,733	60
Oklahoma	362	362	100	0	0	176	176	100	0	0
Oregon	576	116	20	460	80	755	101	13	654	87
Pennsylvania	2,628	527	20	2,101	80	3,114	1,010	32	2,104	68
Rhode Island	293	94	32	199	68	295	65	22	230	78

TABLE C.2a (*continued*)										
State	SA Treatment Users					Total Expenditures (in $ thousands)				
	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care
South Carolina	350	265	76	85	24	272	211	78	61	22
South Dakota	112	112	100	0	0	64	64	100	0	0
Tennessee	1,265	802	63	463	37	1,508	898	60	611	40
Texas	1,474	857	58	617	42	2,053	1,091	53	962	47
Utah	118	118	100	0	0	296	296	100	0	0
Vermont	360	360	100	0	0	246	246	100	0	0
Virginia	1,784	991	56	793	44	1,121	560	50	561	50
Washington	1,882	656	35	1,226	65	2,112	476	23	1,636	77
West Virginia	388	189	49	199	51	248	114	46	134	54
Wisconsin	1,346	791	59	555	41	2,659	2,140	80	519	20
Wyoming	38	38	100	0	0	16	16	100	0	0
Total	**62,663**	**32,293**	**52**	**30,370**	**48**	**86,757**	**50,931**	**59**	**35,826**	**41**

TABLE C.2b. State and Federal Share of Medicaid SA Expenditures Services Related to Fetal Drug or Alcohol Exposure or Poisoning, CY 2008				
State	Total Expenditures (in $ thousands)		% Attributable to State	% Attributable to Federal
	Total State	Total Federal		
Alabama	176	409	30	70
Alaska	370	435	46	54
Arizona	581	1,257	32	68
Arkansas	73	213	26	74
California	2,449	2,751	47	53
Colorado	876	957	48	52
Connecticut	250	277	47	53
Delaware	98	108	47	53
District of Columbia	87	222	28	72
Florida	5,459	8,030	40	60
Georgia	422	808	34	66
Hawaii	78	111	41	59
Idaho	41	106	28	72
Illinois	592	657	47	53
Indiana	440	829	35	65
Iowa	242	422	36	64
Kansas	193	303	39	61
Kentucky	1,580	4,021	28	72
Louisiana	127	367	26	74
Maine	189	360	34	66
Maryland	1,148	1,253	48	52
Massachusetts	2,382	2,601	48	52
Michigan	675	1,055	39	61
Minnesota	4,510	4,994	47	53
Mississippi	69	245	22	78
Missouri	120	220	35	65
Montana	28	68	30	70
Nebraska	107	159	40	60
Nevada	204	254	45	55
New Hampshire	308	327	48	52
New Jersey	1,368	1,494	48	52
New Mexico	274	726	27	73
New York	3,090	3,374	48	52
North Carolina	301	595	34	66
North Dakota	6	11	35	65
Ohio	1,065	1,825	37	63
Oklahoma	54	122	31	69
Oregon	275	480	36	64
Pennsylvania	1,360	1,754	44	56
Rhode Island	132	163	45	55
South Carolina	76	196	28	72
South Dakota	24	40	38	62
Tennessee	511	997	34	66
Texas	768	1,285	37	63
Utah	80	217	27	73
Vermont	96	151	39	61
Virginia	536	585	48	52
Washington	978	1,134	46	54
West Virginia	60	188	24	76
Wisconsin	1,074	1,585	40	60
Wyoming	8	8	48	52
Total	**36,001**	**50,726**	**42**	**58**

TABLE C.3a. Medicaid SA Treatment Users and Expenditures, CY 2008 Services for Other Medical Conditions 100% Attributable to SA										
State	SA Treatment Users					Total Expenditures (in $ thousands)				
	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care
Alabama	397	397	100	0	0	364	364	100	0	0
Alaska	154	154	100	0	0	585	585	100	0	0
Arizona	1,060	241	23	819	77	4,205	1,144	27	3,060	73
Arkansas	351	351	100	0	0	1,008	1,008	100	0	0
California	7,767	5,660	73	2,107	27	36,306	27,973	77	8,333	23
Colorado	882	517	59	365	41	3,986	2,443	61	1,543	39
Connecticut	514	512	100	2	0	2,133	2,122	99	11	1
Delaware	167	81	49	86	51	834	493	59	341	41
District of Columbia	194	144	74	50	26	1,463	1,366	93	97	7
Florida	1,921	1,386	72	535	28	5,497	3,888	71	1,609	29
Georgia	1,117	1,008	90	109	10	4,763	4,468	94	295	6
Hawaii	212	136	64	76	36	411	155	38	255	62
Idaho	175	175	100	0	0	655	655	100	0	0
Illinois	2,140	2,118	99	22	1	14,858	14,807	100	51	0
Indiana	836	704	84	132	16	3,511	3,070	87	441	13
Iowa	497	316	64	181	36	2,182	1,180	54	1,002	46
Kansas	495	319	64	176	36	3,228	2,278	71	950	29
Kentucky	529	529	100	0	0	773	773	100	0	0
Louisiana	653	653	100	0	0	3,445	3,445	100	0	0
Maine	284	284	100	0	0	1,552	1,552	100	0	0
Maryland	935	505	54	430	46	5,810	3,553	61	2,257	39
Massachusetts	2,062	1,740	84	322	16	7,715	6,409	83	1,306	17
Michigan	1,736	722	42	1,014	58	9,133	3,906	43	5,227	57
Minnesota	891	753	85	138	15	5,126	4,430	86	696	14
Mississippi	417	417	100	0	0	1,438	1,438	100	0	0
Missouri	1,137	1,098	97	39	3	3,751	3,698	99	53	1
Montana	246	246	100	0	0	943	943	100	0	0
Nebraska	257	182	71	75	29	1,311	890	68	421	32
Nevada	197	182	92	15	8	1,196	1,154	96	42	4
New Hampshire	144	144	100	0	0	441	441	100	0	0
New Jersey	933	463	50	470	50	4,762	2,364	50	2,398	50
New Mexico	516	323	63	193	37	2,260	1,300	58	960	42
New York	4,948	3,082	62	1,866	38	34,660	20,007	58	14,653	42
North Carolina	1,936	1,936	100	0	0	6,550	6,550	100	0	0
North Dakota	78	78	100	0	0	331	331	100	0	0
Ohio	2,867	1,321	46	1,546	54	13,455	5,553	41	7,902	59
Oklahoma	577	577	100	0	0	2,838	2,838	100	0	0
Oregon	502	295	59	207	41	2,639	1,380	52	1,259	48
Pennsylvania	2,467	757	31	1,710	69	13,574	4,025	30	9,550	70
Rhode Island	187	152	81	35	19	1,297	1,169	90	128	10
South Carolina	619	539	87	80	13	2,834	2,398	85	435	15

TABLE C.3a (*continued*)										
State	SA Treatment Users					Total Expenditures (in $ thousands)				
	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care
South Dakota	120	120	100	0	0	685	685	100	0	0
Tennessee	720	513	71	207	29	3,241	2,225	69	1,016	31
Texas	3,872	2,310	60	1,562	40	20,144	11,811	59	8,333	41
Utah	155	155	100	0	0	988	988	100	0	0
Vermont	163	163	100	0	0	285	285	100	0	0
Virginia	887	514	58	373	42	2,717	1,425	52	1,292	48
Washington	1,809	1,172	65	637	35	7,490	3,790	51	3,699	49
West Virginia	475	455	96	20	4	1,573	1,534	98	38	2
Wisconsin	760	631	83	129	17	5,272	4,741	90	532	10
Wyoming	83	83	100	0	0	382	382	100	0	0
Total	**53,041**	**37,313**	**70**	**15,728**	**30**	**256,600**	**176,414**	**69**	**80,186**	**31**

TABLE C.3b. State and Federal Share of Medicaid SA Expenditures, CY 2008 Services for Other Medical Conditions 100% Attributable to SA				
State	Total Expenditures (in $ thousands)		% Attributable to State	% Attributable to Federal
	Total State	Total Federal		
Alabama	110	255	30	70
Alaska	269	316	46	54
Arizona	1,329	2,876	32	68
Arkansas	257	751	26	74
California	17,101	19,205	47	53
Colorado	1,905	2,080	48	52
Connecticut	1,012	1,121	47	53
Delaware	396	438	47	53
District of Columbia	411	1,052	28	72
Florida	2,225	3,273	40	60
Georgia	1,634	3,128	34	66
Hawaii	169	242	41	59
Idaho	183	471	28	72
Illinois	7,040	7,818	47	53
Indiana	1,217	2,293	35	65
Iowa	797	1,386	36	64
Kansas	1,254	1,974	39	61
Kentucky	218	555	28	72
Louisiana	884	2,562	26	74
Maine	534	1,018	34	66
Maryland	2,777	3,033	48	52
Massachusetts	3,688	4,027	48	52
Michigan	3,564	5,568	39	61
Minnesota	2,433	2,694	47	53
Mississippi	315	1,123	22	78
Missouri	1,327	2,424	35	65
Montana	279	665	30	70
Nebraska	525	786	40	60
Nevada	533	663	45	55
New Hampshire	214	227	48	52
New Jersey	2,277	2,486	48	52
New Mexico	619	1,640	27	73
New York	16,569	18,091	48	52
North Carolina	2,199	4,351	34	66
North Dakota	115	216	35	65
Ohio	4,957	8,497	37	63
Oklahoma	878	1,960	31	69
Oregon	962	1,677	36	64
Pennsylvania	5,929	7,645	44	56
Rhode Island	579	718	45	55
South Carolina	794	2,040	28	72
South Dakota	259	426	38	62
Tennessee	1,099	2,142	34	66
Texas	7,536	12,608	37	63
Utah	265	723	27	73
Vermont	111	175	39	61
Virginia	1,299	1,418	48	52
Washington	3,468	4,022	46	54
West Virginia	381	1,192	24	76
Wisconsin	2,130	3,143	40	60
Wyoming	185	197	48	52
Total	**107,209**	**149,390**	**42**	**58**

TABLE C.4a. Medicaid SA Treatment Users and Expenditures, CY 2008 MH Services with SA as a Secondary Diagnosis										
State	SA Treatment Users					Total Expenditures (in $ thousands)				
	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care
Alabama	1,282	1,282	100	0	0	1,403	1,403	100	0	0
Alaska	1,215	1,215	100	0	0	5,968	5,968	100	0	0
Arizona	6,438	636	10	5,802	90	20,131	1,540	8	18,591	92
Arkansas	2,449	2,449	100	0	0	10,774	10,774	100	0	0
California	22,621	8,661	38	13,960	62	59,739	17,635	30	42,104	70
Colorado	6,305	1,330	21	5,116	79	38,600	4,301	11	34,299	89
Connecticut	7,080	6,911	98	169	2	37,388	36,750	98	638	2
Delaware	868	173	20	695	80	3,174	802	25	2,372	75
District of Columbia	1,907	1,042	55	865	45	15,197	12,050	79	3,147	21
Florida	4,241	2,891	68	1,350	32	13,647	8,800	64	4,846	36
Georgia	5,330	3,481	65	1,849	35	13,186	7,815	59	5,371	41
Hawaii	1,736	974	56	762	44	3,177	1,382	43	1,795	57
Idaho	914	914	100	0	0	3,467	3,467	100	0	0
Illinois	11,010	10,698	97	312	3	68,590	67,171	98	1,420	2
Indiana	8,756	6,364	73	2,392	27	34,063	25,538	75	8,525	25
Iowa	2,240	1,014	45	1,226	55	7,924	2,610	33	5,314	67
Kansas	2,620	1,410	54	1,210	46	10,951	4,734	43	6,217	57
Kentucky	4,281	4,281	100	0	0	12,396	12,396	100	0	0
Louisiana	5,360	5,360	100	0	0	13,978	13,978	100	0	0
Maine	3,282	3,574	100	0	0	28,433	28,433	100	0	0
Maryland	10,526	4,937	47	5,733	54	78,805	32,632	41	46,173	59
Massachusetts	8,983	7,045	78	1,938	22	32,250	25,216	78	7,034	22
Michigan	9,578	2,438	25	7,140	75	35,224	3,718	11	31,506	89
Minnesota	10,040	8,374	83	1,666	17	43,649	37,010	85	6,640	15
Mississippi	3,911	3,911	100	0	0	21,564	21,564	100	0	0
Missouri	8,188	6,383	78	1,805	22	34,112	24,834	73	9,278	27
Montana	1,007	1,007	100	0	0	3,555	3,555	100	0	0
Nebraska	1,421	932	66	489	34	6,440	4,199	65	2,241	35
Nevada	1,145	795	69	350	31	7,552	5,471	72	2,080	28
New Hampshire	670	670	100	0	0	1,743	1,743	100	0	0
New Jersey	9,555	4,792	50	4,763	50	56,323	27,109	48	29,215	52
New Mexico	3,437	799	23	3,199	80	21,575	426	2	21,149	98
New York	28,730	14,347	50	14,383	50	320,268	162,248	51	158,020	49
North Carolina	11,636	11,636	100	0	0	30,592	30,592	100	0	0
North Dakota	942	942	100	0	0	3,160	3,160	100	0	0
Ohio	13,456	5,692	42	7,764	58	45,657	15,888	35	29,769	65
Oklahoma	3,653	3,653	100	0	0	15,341	15,341	100	0	0
Oregon	3,355	849	25	2,573	75	25,735	2,241	9	23,493	91
Pennsylvania	14,097	3,265	23	10,832	77	63,588	7,836	12	55,753	88
Rhode Island	2,124	1,509	71	615	29	10,231	6,681	65	3,550	35
South Carolina	2,547	2,033	80	514	20	6,388	4,890	77	1,498	23

TABLE C.4a (*continued*)										
State	SA Treatment Users					Total Expenditures (in $ thousands)				
	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care
South Dakota	658	658	100	0	0	3,025	3,025	100	0	0
Tennessee	1,804	1,342	74	462	26	2,554	805	32	1,749	68
Texas	5,063	3,199	63	1,864	37	27,081	15,521	57	11,560	43
Utah	432	432	100	0	0	463	463	100	0	0
Vermont	652	652	100	0	0	5,123	5,123	100	0	0
Virginia	3,783	2,011	53	1,772	47	13,299	7,453	56	5,846	44
Washington	8,636	1,977	23	6,808	77	74,249	7,320	10	66,928	90
West Virginia	4,743	2,860	60	1,883	40	21,981	11,272	51	10,709	49
Wisconsin	5,742	4,141	72	1,601	28	14,204	9,794	69	4,410	31
Wyoming	278	278	100	0	0	4,823	4,823	100	0	0
Total	**280,727**	**168,219**	**60**	**113,862**	**40**	**1,432,738**	**769,500**	**54**	**663,238**	**46**

TABLE C.4b. State and Federal Share of Medicaid SA Expenditures, CY 2008 MH Services with SA as a Secondary Diagnosis				
State	Total Expenditures (in $ thousands)		% Attributable to State	% Attributable to Federal
	Total State	Total Federal		
Alabama	423	980	30	70
Alaska	2,743	3,224	46	54
Arizona	6,361	13,770	32	68
Arkansas	2,748	8,025	26	74
California	28,138	31,600	47	53
Colorado	18,453	20,147	48	52
Connecticut	17,742	19,647	47	53
Delaware	1,506	1,668	47	53
District of Columbia	4,267	10,930	28	72
Florida	5,522	8,124	40	60
Georgia	4,525	8,661	34	66
Hawaii	1,306	1,872	41	59
Idaho	971	2,496	28	72
Illinois	32,498	36,092	47	53
Indiana	11,811	22,252	35	65
Iowa	2,892	5,032	36	64
Kansas	4,255	6,696	39	61
Kentucky	3,498	8,899	28	72
Louisiana	3,585	10,393	26	74
Maine	9,786	18,647	34	66
Maryland	37,673	41,132	48	52
Massachusetts	15,417	16,833	48	52
Michigan	13,748	21,476	39	61
Minnesota	20,713	22,937	47	53
Mississippi	4,718	16,847	22	78
Missouri	12,067	22,045	35	65
Montana	1,050	2,505	30	70
Nebraska	2,579	3,861	40	60
Nevada	3,363	4,188	45	55
New Hampshire	844	898	48	52
New Jersey	26,925	29,398	48	52
New Mexico	5,914	15,661	27	73
New York	153,104	167,164	48	52
North Carolina	10,271	20,321	34	66
North Dakota	1,096	2,063	35	65
Ohio	16,822	28,835	37	63
Oklahoma	4,747	10,595	31	69
Oregon	9,383	16,352	36	64
Pennsylvania	27,774	35,814	44	56
Rhode Island	4,567	5,663	45	55
South Carolina	1,790	4,598	28	72
South Dakota	1,143	1,882	38	62
Tennessee	866	1,688	34	66
Texas	10,132	16,949	37	63
Utah	124	339	27	73
Vermont	1,988	3,135	39	61
Virginia	6,358	6,942	48	52
Washington	34,381	39,868	46	54
West Virginia	5,319	16,662	24	76
Wisconsin	5,737	8,459	40	60
Wyoming	2,337	2,486	48	52
Total	**605,980**	**826,758**	**42**	**58**

TABLE C.5a. Medicaid SA Treatment Users and Expenditures, CY 2008 Non-MH Services with SA as a Secondary Diagnosis										
State	SA Treatment Users					Total Expenditures (in $ thousands)				
	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care
Alabama	6,340	6,340	100	0	0	8,952	8,952	100	0	0
Alaska	1,618	1,618	100	0	0	2,917	2,917	100	0	0
Arizona	14,562	2,596	18	11,966	82	65,647	16,495	25	49,152	75
Arkansas	3,758	3,758	100	0	0	3,149	3,149	100	0	0
California	56,202	27,749	49	28,453	51	119,312	34,677	29	84,634	71
Colorado	10,893	5,870	54	5,023	46	49,677	26,626	54	23,051	46
Connecticut	6,141	6,033	98	108	2	36,986	36,184	98	802	2
Delaware	2,015	633	31	1,382	69	12,612	6,886	55	5,726	45
District of Columbia	4,260	2,545	60	1,715	40	48,960	45,781	94	3,179	6
Florida	26,206	19,035	73	7,171	27	171,389	118,812	69	52,577	31
Georgia	15,891	11,039	69	4,852	31	83,603	65,265	78	18,338	22
Hawaii	3,024	1,525	50	1,499	50	12,419	7,030	57	5,388	43
Idaho	1,545	1,545	100	0	0	7,544	7,544	100	0	0
Illinois	22,064	21,530	98	534	2	169,715	167,340	99	2,374	1
Indiana	10,669	6,468	61	4,201	39	50,043	35,674	71	14,369	29
Iowa	6,712	3,866	58	2,846	42	29,244	14,520	50	14,724	50
Kansas	5,408	3,020	56	2,388	44	34,231	20,819	61	13,412	39
Kentucky	10,727	10,727	100	0	0	67,966	67,966	100	0	0
Louisiana	8,983	8,983	100	0	0	28,907	28,907	100	0	0
Maine	3,954	3,954	100	0	0	20,862	20,862	100	0	0
Maryland	11,885	6,078	51	5,807	49	75,712	44,889	59	30,823	41
Massachusetts	17,860	12,724	71	5,136	29	114,745	80,284	70	34,461	30
Michigan	21,863	8,483	39	13,380	61	110,940	42,324	38	68,616	62
Minnesota	11,350	8,301	73	3,049	27	52,948	39,615	75	13,333	25
Mississippi	6,559	6,559	100	0	0	23,771	23,771	100	0	0
Missouri	9,785	7,781	80	2,004	20	25,229	19,980	79	5,248	21
Montana	2,037	2,037	100	0	0	6,869	6,869	100	0	0
Nebraska	3,122	1,834	59	1,288	41	17,414	10,204	59	7,211	41
Nevada	2,611	2,013	77	598	23	14,102	11,931	85	2,171	15
New Hampshire	1,732	1,732	100	0	0	5,838	5,838	100	0	0
New Jersey	11,361	5,039	44	6,322	56	73,270	32,176	44	41,094	56
New Mexico	5,365	2,562	48	2,803	52	23,924	9,915	41	14,009	59
New York	59,280	32,680	55	26,600	45	684,441	402,880	59	281,561	41
North Carolina	20,856	20,856	100	0	0	89,067	89,067	100	0	0
North Dakota	985	985	100	0	0	5,363	5,363	100	0	0
Ohio	31,145	13,437	43	17,708	57	168,405	67,255	40	101,150	60
Oklahoma	8,412	8,412	100	0	0	33,142	33,142	100	0	0
Oregon	4,864	2,185	45	2,679	55	27,881	10,597	38	17,284	62
Pennsylvania	29,915	9,774	33	20,141	67	179,308	58,521	33	120,787	67
Rhode Island	2,395	1,477	62	918	38	5,560	2,339	42	3,221	58
South Carolina	8,188	6,855	84	1,333	16	56,063	46,513	83	9,550	17

TABLE C.5a (*continued*)										
State	SA Treatment Users					Total Expenditures (in $ thousands)				
	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care	Total	FFS Medicaid	% FFS	Medicaid Managed Care	% Managed Care
South Dakota	1,252	1,252	100	0	0	4,951	4,951	100	0	0
Tennessee	14,054	9,503	68	4,551	32	35,391	22,265	63	13,126	37
Texas	18,626	11,545	62	7,081	38	151,566	88,191	58	63,374	42
Utah	1,965	1,965	100	0	0	8,899	8,899	100	0	0
Vermont	1,656	1,656	100	0	0	7,257	7,257	100	0	0
Virginia	11,853	6,889	58	4,964	42	75,429	42,186	56	33,243	44
Washington	15,421	7,840	51	7,581	49	114,977	68,475	60	46,502	40
West Virginia	6,373	4,708	74	1,665	26	18,674	15,545	83	3,129	17
Wisconsin	10,114	6,724	66	3,390	34	50,824	37,842	74	12,983	26
Wyoming	701	701	100	0	0	4,369	4,369	100	0	0
Total	**574,557**	**363,421**	**63**	**211,136**	**37**	**3,290,465**	**2,079,862**	**63**	**1,210,603**	**37**

TABLE C.5b. State and Federal Share of Medicaid SA Expenditures, CY 2008 Non-MH Services with SA as a Secondary Diagnosis				
State	Total Expenditures (in $ thousands)		% Attributable to State	% Attributable to Federal
	Total State	Total Federal		
Alabama	2,697	6,255	30	70
Alaska	1,341	1,576	46	54
Arizona	20,743	44,904	32	68
Arkansas	803	2,346	26	74
California	56,199	63,113	47	53
Colorado	23,748	25,929	48	52
Connecticut	17,551	19,435	47	53
Delaware	5,985	6,627	47	53
District of Columbia	13,748	35,212	28	72
Florida	69,357	102,032	40	60
Georgia	28,688	54,914	34	66
Hawaii	5,103	7,316	41	59
Idaho	2,113	5,431	28	72
Illinois	80,411	89,304	47	53
Indiana	17,352	32,691	35	65
Iowa	10,673	18,571	36	64
Kansas	13,301	20,930	39	61
Kentucky	19,177	48,789	28	72
Louisiana	7,413	21,494	26	74
Maine	7,180	13,682	34	66
Maryland	36,194	39,518	48	52
Massachusetts	54,854	59,891	48	52
Michigan	43,300	67,640	39	61
Minnesota	25,125	27,823	47	53
Mississippi	5,200	18,570	22	78
Missouri	8,925	16,304	35	65
Montana	2,029	4,841	30	70
Nebraska	6,974	10,440	40	60
Nevada	6,281	7,821	45	55
New Hampshire	2,828	3,009	48	52
New Jersey	35,027	38,243	48	52
New Mexico	6,558	17,367	27	73
New York	327,197	357,244	48	52
North Carolina	29,904	59,163	34	66
North Dakota	1,861	3,502	35	65
Ohio	62,049	106,356	37	63
Oklahoma	10,254	22,888	31	69
Oregon	10,165	17,716	36	64
Pennsylvania	78,317	100,991	44	56
Rhode Island	2,482	3,078	45	55
South Carolina	15,709	40,354	28	72
South Dakota	1,871	3,080	38	62
Tennessee	11,999	23,392	34	66
Texas	56,705	94,861	37	63
Utah	2,387	6,512	27	73
Vermont	2,816	4,441	39	61
Virginia	36,059	39,370	48	52
Washington	53,240	61,737	46	54
West Virginia	4,519	14,155	24	76
Wisconsin	20,528	30,296	40	60
Wyoming	2,117	2,252	48	52
Total	**1,367,057**	**1,923,408**	**42**	**58**

TABLE C.6. Unique Count of Medicaid Enrollees with a SA Diagnosis, CY 2008							
State	Total	Source of Identification					
		Core SA Treatment Service	Fetus Affected by Alcohol or Drug	Poisoning or Toxic Effects of Alcohol or Drugs	Other Medical Conditions Attributable to SA	MH Primary Diagnosis with Secondary SA Diagnosis	Non-MH Primary Diagnosis with Secondary SA Diagnosis
Alabama	14,938	8,493	198	1,321	303	674	3,949
Alaska	5,047	3,175	272	18	104	700	778
Arizona	37,233	23,162	943	534	723	3,579	8,292
Arkansas	8,572	3,537	248	71	280	1,962	2,474
California	189,267	134,099	3,562	1,802	5,859	13,106	30,839
Colorado	32,609	21,432	710	247	623	3,128	6,469
Connecticut	24,527	17,916	170	17	312	3,577	2,535
Delaware	6,191	4,186	135	62	124	484	1,200
District of Columbia	8,640	5,206	94	59	125	1,003	2,153
Florida	57,232	29,334	1,340	3,303	1,541	2,716	18,998
Georgia	30,600	14,561	1,058	431	880	3,064	10,174
Hawaii	8,340	5,261	100	111	148	984	1,736
Idaho	3,702	1,841	119	26	140	603	973
Illinois	54,612	34,142	890	571	1,546	5,529	11,934
Indiana	32,975	18,501	867	319	580	6,266	6,442
Iowa	12,710	5,860	397	165	374	1,488	4,426
Kansas	11,584	5,665	214	121	362	1,766	3,465
Kentucky	23,330	12,889	341	1,779	342	2,550	5,429
Louisiana	18,020	7,540	686	25	504	3,761	5,504
Maine	17,183	12,966	171	146	199	1,509	2,192
Maryland	37,827	22,766	688	316	689	6,538	6,830
Massachusetts	63,425	49,135	1,468	86	1,156	4,381	7,199
Michigan	53,626	32,558	1,255	629	1,188	5,471	12,525
Minnesota	30,087	16,732	1,151	210	518	6,017	5,459
Mississippi	14,969	8,388	156	324	269	2,249	3,583
Missouri	37,641	26,469	287	98	726	4,798	5,263
Montana	4,712	2,692	102	16	153	604	1,145
Nebraska	8,772	5,497	187	87	184	871	1,946
Nevada	6,426	3,408	315	50	143	768	1,742
New Hampshire	4,807	3,339	136	5	83	365	879
New Jersey	41,136	28,208	887	306	682	5,352	5,701
New Mexico	16,257	10,245	386	165	388	1,824	3,249
New York	296,061	246,207	2,140	1,123	2,961	13,846	29,784
North Carolina	47,626	25,568	1,250	63	1,329	7,042	12,374
North Dakota	2,809	1,736	11	1	35	492	534
Ohio	105,134	75,981	1,333	631	2,020	7,558	17,611
Oklahoma	15,749	6,366	273	46	433	2,645	5,986
Oregon	10,948	5,653	319	134	343	1,695	2,804
Pennsylvania	77,463	47,470	1,344	750	1,725	8,243	17,931
Rhode Island	9,633	7,209	154	59	104	1,050	1,057

TABLE C.6 (*continued*)							
State	**Total**	**Source of Identification**					
		Core SA Treatment Service	**Fetus Affected by Alcohol or Drug**	**Poisoning or Toxic Effects of Alcohol or Drugs**	**Other Medical Conditions Attributable to SA**	**MH Primary Diagnosis with Secondary SA Diagnosis**	**Non-MH Primary Diagnosis with Secondary SA Diagnosis**
South Carolina	19,769	12,353	232	24	462	1,425	5,273
South Dakota	2,931	1,398	88	12	106	479	848
Tennessee	22,914	9,930	870	143	600	1,163	10,208
Texas	39,607	17,077	1,224	93	3,325	3,527	14,361
Utah	6,124	4,506	57	27	103	239	1,192
Vermont	9,529	8,375	231	3	95	212	613
Virginia	21,448	9,329	598	914	640	2,389	7,578
Washington	65,731	50,986	998	402	1,195	3,958	8,192
West Virginia	17,149	10,925	212	51	298	2,469	3,194
Wisconsin	27,210	16,704	460	581	485	3,367	5,613
Wyoming	1,963	1,271	22	9	59	190	412
Total	**1,716,795**	**1,138,247**	**31,357**	**18,487**	**37,573**	**159,778**	**331,353**

APPENDIX D. STATE LEVEL PROJECTIONS, FY 2011

TABLE D.1. Projected Medicaid SA Treatment Expenditures, FY 2011 Core SA Treatment Services

State	Expenditures (in $ thousands)			% Attributable to State	% Attributable to Federal
	Total	State	Federal		
Alabama	10,635	2,792	7,843	26	74
Alaska	9,112	3,879	5,233	43	57
Arizona	161,075	45,866	115,209	28	72
Arkansas	5,848	1,356	4,492	23	77
California	419,497	181,181	238,316	43	57
Colorado	73,146	31,592	41,555	43	57
Connecticut	92,543	39,969	52,574	43	57
Delaware	13,563	5,468	8,095	40	60
District of Columbia	16,424	4,092	12,332	25	75
Florida	50,238	18,735	31,503	37	63
Georgia	22,092	6,447	15,645	29	71
Hawaii	9,204	3,537	5,667	38	62
Idaho	3,402	860	2,542	25	75
Illinois	113,731	48,822	64,909	43	57
Indiana	32,318	9,080	23,238	28	72
Iowa	10,809	3,442	7,367	32	68
Kansas	19,383	6,763	12,620	35	65
Kentucky	39,941	9,408	30,533	24	76
Louisiana	11,367	2,827	8,540	25	75
Maine	55,107	16,416	38,691	30	70
Maryland	86,835	37,504	49,331	43	57
Massachusetts	107,899	46,602	61,297	43	57
Michigan	82,430	23,707	58,723	29	71
Minnesota	61,250	26,454	34,796	43	57
Mississippi	21,941	4,291	17,650	20	80
Missouri	73,865	22,335	51,530	30	70
Montana	7,579	2,023	5,556	27	73
Nebraska	16,073	5,749	10,325	36	64
Nevada	11,117	4,562	6,555	41	59
New Hampshire	7,443	3,215	4,228	43	57
New Jersey	85,771	37,044	48,726	43	57
New Mexico	36,014	8,669	27,345	24	76
New York	1,331,535	575,090	756,445	43	57
North Carolina	52,954	15,606	37,349	29	71
North Dakota	4,306	1,484	2,823	34	66
Ohio	203,518	62,439	141,079	31	69
Oklahoma	11,043	3,104	7,939	28	72
Oregon	60,165	18,920	41,245	31	69
Pennsylvania	127,838	48,626	79,211	38	62
Rhode Island	27,916	11,300	16,616	40	60
South Carolina	20,426	5,044	15,382	25	75
South Dakota	6,257	2,064	4,193	33	67
Tennessee	17,477	5,017	12,460	29	71
Texas	29,501	9,895	19,607	34	66
Utah	7,856	1,848	6,009	24	76
Vermont	21,806	7,576	14,231	35	65
Virginia	21,695	9,370	12,325	43	57
Washington	166,909	70,402	96,507	42	58
West Virginia	26,857	5,717	21,140	21	79
Wisconsin	43,947	14,886	29,061	34	66
Wyoming	1,859	803	1,056	43	57
Total	**3,951,517**	**1,533,874**	**2,417,643**	**39**	**61**

TABLE D.2. Projected Medicaid SA Treatment Expenditures, FY 2011 Services Related to Fetal Drug or Alcohol Exposure and Poisoning					
State	Expenditures (in $ thousands)			% Attributable to State	% Attributable to Federal
	Total	State	Federal		
Alabama	637	167	470	26	74
Alaska	1,050	447	603	43	57
Arizona	1,999	569	1,430	28	72
Arkansas	325	75	249	23	77
California	6,790	2,933	3,858	43	57
Colorado	2,313	999	1,314	43	57
Connecticut	613	265	348	43	57
Delaware	239	96	142	40	60
District of Columbia	421	105	316	25	75
Florida	15,658	5,839	9,819	37	63
Georgia	1,275	372	903	29	71
Hawaii	222	85	137	38	62
Idaho	175	44	131	25	75
Illinois	1,275	547	728	43	57
Indiana	1,296	364	932	28	72
Iowa	739	235	503	32	68
Kansas	548	191	357	35	65
Kentucky	6,142	1,447	4,696	24	76
Louisiana	493	123	371	25	75
Maine	531	158	373	30	70
Maryland	2,849	1,231	1,619	43	57
Massachusetts	5,516	2,383	3,134	43	57
Michigan	1,970	567	1,403	29	71
Minnesota	10,591	4,574	6,017	43	57
Mississippi	340	67	274	20	80
Missouri	358	108	250	30	70
Montana	109	29	80	27	73
Nebraska	263	94	169	36	64
Nevada	506	208	299	41	59
New Hampshire	641	277	364	43	57
New Jersey	3,014	1,302	1,712	43	57
New Mexico	1,015	244	771	24	76
New York	6,749	2,915	3,834	43	57
North Carolina	875	258	617	29	71
North Dakota	20	7	13	34	66
Ohio	3,347	1,027	2,320	31	69
Oklahoma	190	53	136	28	72
Oregon	949	298	651	31	69
Pennsylvania	3,642	1,385	2,257	38	62
Rhode Island	320	129	190	40	60
South Carolina	294	73	221	25	75
South Dakota	68	22	46	33	67
Tennessee	1,580	454	1,126	29	71
Texas	2,496	837	1,659	34	66
Utah	319	75	244	24	76
Vermont	269	93	175	35	65
Virginia	1,343	580	763	43	57
Washington	2,307	973	1,334	42	58
West Virginia	278	59	218	21	79
Wisconsin	3,258	1,104	2,155	34	66
Wyoming	17	7	9	43	57
Total	**98,236**	**36,496**	**61,740**	**37**	**63**

TABLE D.3. Projected Medicaid SA Treatment Expenditures, FY 2011 Services for Other Medical Conditions 100% Attributable to SA					
State	Expenditures (in $ thousands)			% Attributable to State	% Attributable to Federal
	Total	State	Federal		
Alabama	397	104	293	26	74
Alaska	764	325	439	43	57
Arizona	4,573	1,302	3,271	28	72
Arkansas	1,146	266	880	23	77
California	47,412	20,477	26,934	43	57
Colorado	5,030	2,173	2,858	43	57
Connecticut	2,481	1,072	1,410	43	57
Delaware	968	390	578	40	60
District of Columbia	1,993	497	1,496	25	75
Florida	6,382	2,380	4,002	37	63
Georgia	4,937	1,441	3,496	29	71
Hawaii	483	185	297	38	62
Idaho	776	196	580	25	75
Illinois	15,166	6,511	8,656	43	57
Indiana	3,586	1,008	2,579	28	72
Iowa	2,428	773	1,655	32	68
Kansas	3,568	1,245	2,323	35	65
Kentucky	848	200	648	24	76
Louisiana	3,439	855	2,584	25	75
Maine	1,499	447	1,053	30	70
Maryland	6,895	2,978	3,917	43	57
Massachusetts	8,541	3,689	4,852	43	57
Michigan	10,397	2,990	7,407	29	71
Minnesota	5,713	2,467	3,245	43	57
Mississippi	1,560	305	1,255	20	80
Missouri	3,957	1,197	2,761	30	70
Montana	1,069	285	783	27	73
Nebraska	1,296	464	833	36	64
Nevada	1,325	544	781	41	59
New Hampshire	445	192	253	43	57
New Jersey	5,015	2,166	2,849	43	57
New Mexico	2,293	552	1,741	24	76
New York	36,190	15,631	20,560	43	57
North Carolina	6,400	1,886	4,514	29	71
North Dakota	406	140	266	34	66
Ohio	15,584	4,781	10,803	31	69
Oklahoma	3,056	859	2,197	28	72
Oregon	3,317	1,043	2,274	31	69
Pennsylvania	15,875	6,039	9,837	38	62
Rhode Island	1,407	569	837	40	60
South Carolina	3,056	755	2,301	25	75
South Dakota	727	240	487	33	67
Tennessee	3,394	974	2,420	29	71
Texas	24,491	8,214	16,277	34	66
Utah	1,063	250	813	24	76
Vermont	311	108	203	35	65
Virginia	3,254	1,405	1,849	43	57
Washington	8,183	3,452	4,731	42	58
West Virginia	1,762	375	1,387	21	79
Wisconsin	6,461	2,189	4,273	34	66
Wyoming	385	166	219	43	57
Total	**291,703**	**108,750**	**182,953**	**37**	**63**

TABLE D.4. Projected Medicaid SA Treatment Expenditures, FY 2011 MH Services with SA as a Secondary Diagnosis					
State	Expenditures (in $ thousands)			% Attributable to State	% Attributable to Federal
	Total	State	Federal		
Alabama	1,528	401	1,127	26	74
Alaska	7,787	3,315	4,472	43	57
Arizona	21,894	6,234	15,659	28	72
Arkansas	12,252	2,841	9,411	23	77
California	78,013	33,694	44,319	43	57
Colorado	48,716	21,040	27,675	43	57
Connecticut	43,503	18,789	24,714	43	57
Delaware	3,684	1,485	2,199	40	60
District of Columbia	20,697	5,157	15,540	25	75
Florida	15,841	5,908	9,934	37	63
Georgia	13,669	3,989	9,680	29	71
Hawaii	3,735	1,435	2,300	38	62
Idaho	4,108	1,039	3,069	25	75
Illinois	70,014	30,055	39,959	43	57
Indiana	34,794	9,775	25,018	28	72
Iowa	8,815	2,807	6,008	32	68
Kansas	12,105	4,224	7,882	35	65
Kentucky	13,594	3,202	10,392	24	76
Louisiana	13,951	3,470	10,481	25	75
Maine	27,464	8,182	19,283	30	70
Maryland	93,516	40,389	53,126	43	57
Massachusetts	35,704	15,421	20,284	43	57
Michigan	40,099	11,533	28,567	29	71
Minnesota	48,642	21,008	27,633	43	57
Mississippi	23,396	4,576	18,821	20	80
Missouri	35,988	10,882	25,106	30	70
Montana	4,026	1,074	2,952	27	73
Nebraska	6,367	2,277	4,090	36	64
Nevada	8,364	3,432	4,932	41	59
New Hampshire	1,760	760	1,000	43	57
New Jersey	59,312	25,617	33,695	43	57
New Mexico	21,889	5,269	16,620	24	76
New York	334,403	144,429	189,974	43	57
North Carolina	29,894	8,810	21,084	29	71
North Dakota	3,880	1,337	2,543	34	66
Ohio	52,883	16,224	36,658	31	69
Oklahoma	16,519	4,643	11,877	28	72
Oregon	32,342	10,171	22,171	31	69
Pennsylvania	74,367	28,287	46,080	38	62
Rhode Island	11,097	4,492	6,605	40	60
South Carolina	6,887	1,701	5,187	25	75
South Dakota	3,210	1,059	2,151	33	67
Tennessee	2,675	768	1,907	29	71
Texas	32,925	11,043	21,882	34	66
Utah	498	117	381	24	76
Vermont	5,590	1,942	3,648	35	65
Virginia	15,931	6,880	9,050	43	57
Washington	81,123	34,218	46,905	42	58
West Virginia	24,629	5,242	19,386	21	79
Wisconsin	17,405	5,895	11,509	34	66
Wyoming	4,859	2,099	2,760	43	57
Total	**1,586,344**	**598,637**	**987,707**	**38**	**62**

TABLE D.5. Projected Medicaid SA Treatment Expenditures, FY 2011 Non-MH Services with SA as a Secondary Diagnosis					
State	Expenditures (in $ thousands)			% Attributable to State	% Attributable to Federal
	Total	State	Federal		
Alabama	9,752	2,560	7,192	26	74
Alaska	3,807	1,621	2,186	43	57
Arizona	71,397	20,330	51,067	28	72
Arkansas	3,581	831	2,751	23	77
California	155,809	67,294	88,515	43	57
Colorado	62,696	27,078	35,617	43	57
Connecticut	43,035	18,587	24,448	43	57
Delaware	14,638	5,901	8,737	40	60
District of Columbia	66,679	16,613	50,066	25	75
Florida	198,955	74,195	124,760	37	63
Georgia	86,666	25,291	61,375	29	71
Hawaii	14,598	5,610	8,989	38	62
Idaho	8,936	2,260	6,676	25	75
Illinois	173,238	74,367	98,871	43	57
Indiana	51,116	14,361	36,755	28	72
Iowa	32,533	10,360	22,173	32	68
Kansas	37,841	13,203	24,638	35	65
Kentucky	74,532	17,556	56,976	24	76
Louisiana	28,853	7,177	21,677	25	75
Maine	20,151	6,003	14,148	30	70
Maryland	89,845	38,804	51,041	43	57
Massachusetts	127,036	54,867	72,169	43	57
Michigan	126,295	36,323	89,973	29	71
Minnesota	59,004	25,484	33,520	43	57
Mississippi	25,790	5,044	20,746	20	80
Missouri	26,617	8,048	18,568	30	70
Montana	7,780	2,076	5,704	27	73
Nebraska	17,217	6,158	11,059	36	64
Nevada	15,619	6,409	9,210	41	59
New Hampshire	5,894	2,546	3,348	43	57
New Jersey	77,158	33,325	43,834	43	57
New Mexico	24,272	5,843	18,429	24	76
New York	714,649	308,657	405,992	43	57
North Carolina	87,035	25,649	61,386	29	71
North Dakota	6,585	2,268	4,316	34	66
Ohio	195,056	59,843	135,213	31	69
Oklahoma	35,687	10,030	25,657	28	72
Oregon	35,039	11,019	24,020	31	69
Pennsylvania	209,702	79,765	129,937	38	62
Rhode Island	6,031	2,441	3,590	40	60
South Carolina	60,448	14,926	45,522	25	75
South Dakota	5,254	1,733	3,521	33	67
Tennessee	37,071	10,642	26,429	29	71
Texas	184,274	61,806	122,469	34	66
Utah	9,574	2,252	7,323	24	76
Vermont	7,918	2,751	5,167	35	65
Virginia	90,353	39,023	51,329	43	57
Washington	125,621	52,987	72,634	42	58
West Virginia	20,923	4,453	16,470	21	79
Wisconsin	62,276	21,094	41,181	34	66
Wyoming	4,402	1,901	2,501	43	57
Total	**3,659,241**	**1,349,365**	**2,309,876**	**37**	**63**

APPENDIX E. STATE VARIATION IN SUBSTANCE ABUSE TREATMENT COVERAGE, NASADAD SURVEY RESULTS

TABLE E.1. State Medicaid Program Coverage of SA Services, NASADAD Survey Results									
Study Category	**Institutional Care: Acute Inpatient Care**	**Residential Treatment**		**Outpatient Treatment: Intensive Treatment Program**	**Outpatient Treatment: Other Screening/Intervention**		**Outpatient Treatment: Other Medication Management**	**Outpatient Treatment: Other Case Management**	**Outpatient Treatment: Detoxification; Other Counseling/ Therapy; Treatment Program Service**
NASADAD Category	**Medically Managed Intensive Inpatient Treatment**	**Short-Term Residential/ Inpatient**	**Long-Term Residential/ Inpatient**	**Intensive Outpatient/ Partial Hospitalization**	**Early Intervention**	**Crisis**	**Methadone Treatment**	**Case Management**	**Outpatient Treatment**
Alabama	No	No	No	Rhb	No	Rhb	Rhb	No	Rhb
Alaska	Yes	Yes	N/A	N/A	Yes	N/A	Yes	N/A	Yes
Arizona	Under waiver	Under waiver (room & board not reimbursed)	Inp; <21; Inp-Detox Only; EPSDT1	Under waiver	Under waiver	Under waiver	Under waiver	Under waiver	Under waiver
Arkansas[1]	No	No	No	No	N/A	No	No	No	No
California	N/A	Inp; EPSDT	Inp; EPSDT	Rhb; Cl; EPSDT	No	Rhb; Cl; EPSDT	Cl	TCM; Rhb; Cl; EPSDT[2]	Rhb; Cl; EPSDT
Colorado	No	<21; Inp-Detox Only	<21	No	No	No	Phys; Cl; EPSDT	TCM; Cl; EPSDT; Prac	Phys; Rhb; Cl; <21; EPSDT; Prac; TCM
Connecticut	Yes	Yes-for children <21	N/A	Yes	N/A	Yes	Yes	Yes	Yes
Delaware[3]	No	Inp; Inp-Detox Only	<21	Outp; Rhb; EPSDT; Under waiver	EPSDT; Phys	Outp; EPSDT	Rhb; Cl	Rhb; Provided by Div. Substance Abuse & Mental Health & Children Mental Health	Outp; Phys; Rhb; Cl; EPSDT; Prac; Under waiver
District of Columbia[1]	No	No	No	No	N/A	No	No	No	No
Florida	N/A	<21; EPDST+	No	Outp; Rhb; EPSDT; Cl; HCB; Prac; Phys	No	Cl	Phys; Rhb; Under waiver	TCM; Rhb; Cl	Phys; Rhb; Cl; EPSDT; Prac; TCM
Georgia	No	Yes	<21	Rhb	No	Rhb	Rhb	No	Rhb
Hawaii	N/A	Yes	No	N/A	Rhb	N/A	N/A	N/A	Yes
Idaho	Inp	No	No	Rhb; Cl; Prac; Phys	No	No	No	Rhb; Cl	Phys; Rhb; Cl; Prac
Illinois	Yes	Yes	Yes	Cl	No	No	Rhb[4]	No	Cl

TABLE E.1 (*continued*)									
Study Category	**Institutional Care: Acute Inpatient Care**	**Residential Treatment**		**Outpatient Treatment: Intensive Treatment Program**	**Outpatient Treatment: Other Screening/Intervention**		**Outpatient Treatment: Other Medication Management**	**Outpatient Treatment: Other Case Management**	**Outpatient Treatment: Detoxification; Other Counseling/ Therapy; Treatment Program Service**
NASADAD Category	**Medically Managed Intensive Inpatient Treatment**	**Short-Term Residential/ Inpatient**	**Long-Term Residential/ Inpatient**	**Intensive Outpatient/ Partial Hospitalization**	**Early Intervention**	**Crisis**	**Methadone Treatment**	**Case Management**	**Outpatient Treatment**
Indiana	<21	No	No	Outp; Rhb; Cl; Prac	No	Outp	Phys; Cl	No	Outp; Rhb; Cl; Prac
Iowa	Yes	Yes	Yes	Yes	Yes	Yes	Yes[5]	Yes[6]	Yes
Kansas	Inp	Under waiver	Yes	Rhb	No	Rhb	Rhb	Rhb	Rhb
Kentucky[7]	No	No	No	No	No	No	No	TCM; Cl	No
Louisiana	No	No	No	No	No	No	No	No	No
Maine	N/A	No	No	Yes	N/A	N/A	N/A	N/A	Yes
Maryland	No	<21	<21	Yes	Yes	Yes	Yes	No	Yes
Massachusetts	Yes	No	No	Pregnant women only	Yes	Yes	Yes	Yes	Yes
Michigan	No	Inp	Inp	Cl; under waiver	Cl; Under waiver	No	Cl; Under waiver	No	Cl; Under waiver
Minnesota	Yes	Yes	N/A	Yes	N/A	N/A	Yes	Yes	Yes
Mississippi[1]	No	No	No	No	No	No	No	No+	No
Missouri	No	No	No	Rhb	No	No	Rhb	Rhb	Rhb
Montana	No	Rhb	Rhb	Rhb; Cl; Prac; Phys	Phys	No	No	TCM	Phys; Rhb; Cl; Prac; TCM
Nebraska	Inp; Under waiver	<21; Inp-Detox Only; EPDST; Under waiver+	<21; EPSDT	Outp; Rhb; EPSDT; Cl; HCB; Prac; Phys; Under waiver	No	No	Phys; Rhb; Cl; Prac	TCM; Cl; EPSDT; Prac	Outp; Phys; Rhb; Cl; <21; EPSDT; Prac; Under waiver
Nevada[8]	<21	No	No	No	EPSDT	No	Yes	No	No
New Hampshire	No	No	No	No	No	No	No	No	No
New Jersey	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Cl
New Mexico	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A	Yes
New York	No	Inp; <21+	No	Outp; Cl	In emergency department only	Outp; Cl	Phys; Cl	No	Outp; Cl

TABLE E.1 (*continued*)									
Study Category	**Institutional Care: Acute Inpatient Care**	**Residential Treatment**		**Outpatient Treatment: Intensive Treatment Program**	**Outpatient Treatment: Other Screening/Intervention**		**Outpatient Treatment: Other Medication Management**	**Outpatient Treatment: Other Case Management**	**Outpatient Treatment: Detoxification; Other Counseling/ Therapy; Treatment Program Service**
NASADAD Category	**Medically Managed Intensive Inpatient Treatment**	**Short-Term Residential/ Inpatient**	**Long-Term Residential/ Inpatient**	**Intensive Outpatient/ Partial Hospitalization**	**Early Intervention**	**Crisis**	**Methadone Treatment**	**Case Management**	**Outpatient Treatment**
North Carolina	Inp	Medically monitored community residential treatment & non-medical community residential treatment-licensed facility	No	Outp; Rhb; Cl; Other-licensed facility	Rhb; Phys; Cl	Rhb; Cl; Mobile Crisis Management, Detox services, facility- based crisis services	Yes	Rhb	Phys; Rhb; Cl; Prac
North Dakota	Yes	N/A	N/A	Yes	N/A	Yes	N/A	N/A	Yes
Ohio	No	No	No	Rhb	No	Rhb	Rhb	Rhb+	Rhb
Oklahoma	No	Inp-Detox Only[9]	No	N/A	Yes	Outp; Rhb	No	TCM; Outp; Cl	Outp; Phys; Rhb; Cl; <21; EPSDT; Prac; TCM
Oregon[10]	Yes	Yes	Yes	Outp; Rhb; EPSDT; Cl; HCB; Prac; Phys; Under waiver	EPSDT, Rhb; Cl; Phys; Under waiver	Yes	Must be a state-approved opiate treatment program	Yes	Outp; Phys; Rhb; Cl; <21; EPSDT; Prac; TCM; Under waiver
Pennsylvania	Inp; Under waiver	Yes	Yes	No	No	No	Under waiver	Under waiver	Cl; TCM
Rhode Island	Yes	Yes (no room & board)	No	Yes	N/A	Yes	Yes	Yes	Yes
South Carolina	Yes	Inp; Inp- Detox Only	Inp; Inp- Detox Only	Outp; Rhb	No	Outp; Rhb; TCM	No	TCM; Outp; Rhb	Outp; Phys; Rhb; Cl; <21; TCM
South Dakota	Yes	Yes	No	Yes	No	Yes	No	No	Yes
Tennessee	Yes	Yes	Yes (for <21 & SPMI)	Yes	N/A	Yes	Yes	Yes	Yes

TABLE E.1 (*continued*)									
Study Category	**Institutional Care: Acute Inpatient Care**	**Residential Treatment**		**Outpatient Treatment: Intensive Treatment Program**	**Outpatient Treatment: Other Screening/Intervention**		**Outpatient Treatment: Other Medication Management**	**Outpatient Treatment: Other Case Management**	**Outpatient Treatment: Detoxification; Other Counseling/ Therapy; Treatment Program Service**
NASADAD Category	**Medically Managed Intensive Inpatient Treatment**	**Short-Term Residential/ Inpatient**	**Long-Term Residential/ Inpatient**	**Intensive Outpatient/ Partial Hospitalization**	**Early Intervention**	**Crisis**	**Methadone Treatment**	**Case Management**	**Outpatient Treatment**
Texas	No	No	No	EPSDT	No	No	Phys; Under waiver	No	EPSDT[11]
Utah[12]	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes
Vermont	No	Under waiver; State plan	Other-State plan	Rhb; Under waiver	No	No	Rhb; Under waiver; State plan	TCM; Rhb; Under waiver; State plan	Rhb; Cl; Prac; TCM; Under waiver; State plan
Virginia	For pregnant women only	Inp; <21; EPDST	Inp; <21; EPSDT	Rhb; EPSDT; Cl; Prac; Phys	EPSDT, Rhb; Phys; Cl; Other-psychiatric services; MH clinic	Licensed SA outpatient program	Phys; Cl; Prac; Other- Opioid Treatment Services	Rhb; Qualified SA case manager not required to be part of an organizational unit that provides only case management	Phys; Cl; Prac; Other- Opioid Treatment Services
Washington[13]	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
West Virginia	N/A	N/A	N/A	N/A	N/A	N/A	No	Yes	No
Wisconsin	Inp	Inp; Inp-Detox Only (room & board not reimbursed)	No	Outp; Rhb; EPSDT; Cl; Prac; Phys	Cl; Phys; Other-ERs, hospitals, prenatal care coordination agencies, crisis intervention agencies	County-based agencies	Cl	TCM; CL; Other-County-based providers	Cl
Wyoming	Inp	Inp; Inp-Detox Only	Inp	Rhb	Rhb; Cl; Phys	No	Phys; Cl	TCM; EPSDT; Under waiver	Phys; Cl

SOURCE: NASADAD Inquiry. State Medicaid and S-CHIP Coverage of Substance Abuse Services. Washington, DC. November 2010.
NOTES: Inp = General Inpatient; Phys = Physician; Outp = Outpatient hospital, FQHC, and RHC; 21 = Psychiatric Facility Services for Children Under age 21; Prac = Other Licensed Practitioners, Rhb = Rehabilitation; Cl = Clinic; TCM = Targeted Case Management; HCB = Home and Community-Based Waiver Services; Under Waiver; Other; MH = mental health; SA = substance abuse.

TABLE E.1 (*continued*)

1. In Arkansas, the District of Columbia, and Mississippi, clients with a primary SA diagnosis are not eligible for Medicaid services, but people with primary MH diagnoses are eligible for Medicaid-funded SA treatment.
2. Case management in California is limited to perinatal clients.
3. All initial evaluations in Delaware include screening. When necessary, the Division of Children's Mental Health covers services.
4. In Illinois, methadone treatment can be covered under outpatient, although DASA uses a weekly FFS rate, so for the most part Medicaid is not utilized.
5. In Iowa, Medicaid Managed Care covers counseling associated with methadone treatment only. Dosing is paid through other funding.
6. Case management services in Iowa are covered only as part of services client receives while in treatment; they are not separately billable.
7. Pregnant and 60-day postpartum women are the only populations covered for SA services in Kentucky.
8. In Nevada, additional services (outpatient, residential) can be provided by MH professionals.
9. In Oklahoma, medical detoxification is covered as a medical service, but not as a behavioral health service.
10. In Oregon, services must be approved by an A&D provider with a Certified Alcohol and Drug Counselor (CADC) or an allied health professional licensed by an Oregon board of medical examiners, psychologist examiners, clinical social workers, licensed professional counselors and therapists, or nurses.
11. Outpatient Counseling in Texas is provided by a Licensed Child/Adolescent Treatment Facility.
12. In Utah, programs are not reimbursed by programs or at the American Society of Addiction Medicine (ASAM) level, but by services provided.
13. In Washington, all eligible services can be provided by a Division of Alcoholism and Substance Abuse-certified agency which signs a core provider agreement. Some services, including outpatient, residential, crisis, and school-based services can also be administered by providers with Title XIX contracts.

TABLE E.2. Details of Coverage of MH and SA Services in HMOs and BHOs, by State						
	State Has HMO/HIO	**State Carves SA Out of HMOs/HIOs**	**State Includes SA Services in HMOs/HIOs**	**Notes on Managed Care Coverage of SA Services**	**Source of Managed Care Coverage Information**	**Known Data Quality Issues**
Alabama (AL)	X	X		Alabama has a maternity care Prepaid Inpatient Health Plan (PIHP) managed care program that is paid using capitation. This program does not include behavioral health services.	2008 National Summary of State Medicaid Managed Care Programs -- page 1	No significant issues.
Alaska (AK)		NA	NA	NA	NA	62.9% of enrollees indicated to have private health insurance coverage. Only 56.7% of claims in the OT file have a primary diagnosis code.
Arizona (AZ)	X		X	State carves MH & SA services from the HMO, yet also has a BHO.	2008 National Summary of State Medicaid Managed Care Programs -- page 205	No significant issues.
Arkansas (AR)		NA	NA	NA	NA	IP claims have a maximum of 2 DX codes only. 2.1% of records have no eligibility information. Identification of private insurance coverage is unreliable.
California (CA)	X	X	X	CA has a statewide FFS MH plan covering specialty MH services for all that meet medical necessity criteria, but county MH departments have the first right of refusal to serve as the MH plan. The Partnership Health Plan of CA HIO & the Sacramento Geographic managed care organization (MCO) include inpatient/outpatient MH. The San Diego Geographic MCO, the AIDS Healthcare MCO, & the Prepaid Health Plan (PHP) Program MCO include outpatient MH. The Senior Care Action Network MCO includes inpatient MH/substance use disorder (SUD) & outpatient MH. The Caloptima HIO, the Central Coast Alliance for Health HIO, the Health Plan of San Mateo MCO, the Santa Barbara San Luis Obispo Regional Health Authority HIO, & the Two-Plan Model Program MCO carve out MH services.	2008 National Summary of State Medicaid Managed Care Programs -- pages 11, 16, 24, 29, 31, 36, 41, 359, 365, 370, 506, 514, & 520	IP claims only have a maximum of 2 DX codes & LT claims only 1.

TABLE E.2 (*continued*)						
	State Has HMO/HIO	**State Carves SA Out of HMOs/HIOs**	**State Includes SA Services in HMOs/HIOs**	**Notes on Managed Care Coverage of SA Services**	**Source of Managed Care Coverage Information**	**Known Data Quality Issues**
Colorado (CO)	X	X		State carves out MH service from MCO. Has an MH PIHP that does not specifically mention SA services but includes a fairly comprehensive list of MH services.	2008 National Summary of State Medicaid Managed Care Programs -- pages 42, 527	No significant issues.
Connecticut (CT)	X	X		CT's Husky A has an MH ASO that covers SUD services.	2008 National Summary of State Medicaid Managed Care Programs -- page 49	CT's HMOs ceased providing services to Medicaid enrollees from December 2007 through July 2008, so there was no HMO enrollment during this period.
Delaware (DE)	X		X	DE's Diamond State Health Plan MCOs cover SA services.	2008 National Summary of State Medicaid Managed Care Programs -- page 218	No significant issues.
District of Columbia (DC)	X		X	DC Medicaid Managed Care Program (comprehensive benefits, risk-based capitation) includes services for inpatient MH & SA & outpatient MH (does not mention outpatient SA).	2008 National Summary of State Medicaid Managed Care Programs -- page 375	In the LT file, only 9.3% of claims have a primary DX code.
Florida (FL)	X		X	FL has 2 MCOs: Managed Health Care MCO includes inpatient MH/SUD & MH targeted case management, & Florida Medicaid Reform MCO includes community MH services, inpatient/ outpatient MH/SUD services, & outpatient MH. The state also has an MH PIHP, a Statewide Inpatient Psychiatric Program, & a Shared Savings Model that covers community MH.	2008 National Summary of State Medicaid Managed Care Programs -- pages 57, 61, 63, 72, 225	In the LT file, only 32% of claims have a primary DX code; in the OT file only 78.3% do. Correctable mismatch between claim & eligibility file MSIS-IDs. LT & Medical--Only PIHPs reported in CMS data but not MAX.
Georgia (GA)	X		X	GA has an MCO that covers inpatient/outpatient MH/SUD services. The state also has a BHO, which became FFS in 2007. Preadmission Screening & Annual Resident Review (PASARR) program ceased operating as a MH PIHP on September 30, 2007. Effective October 1, 2007, this program uses only 1915(b)(4) authority solely for FFS reimbursement arrangement.	2008 National Summary of State Medicaid Managed Care Programs -- pages 73, 384	In the OT file, only 94.8% of claims have primary diagnosis codes. Individuals in a MH PIHP 1915b waiver program were incorrectly assigned to primary care case management (PCCM) instead of PHP. This error is correctable.
Hawaii (HI)	X		X	HI QUEST Expanded (QEx) MCO & MH/SUD PIHP cover all MH & SUD services (risk-based capitation). If enrollee is in both, it is unclear who pays for SA services.	2008 National Summary of State Medicaid Managed Care Programs -- page 234	3.3% of records missing eligibility information. In the OT file, only 75.2% of claims have a primary diagnosis code.
Idaho (ID)		NA	NA	NA	NA	No significant issues.

TABLE E.2 (*continued*)						
	State Has HMO/HIO	**State Carves SA Out of HMOs/HIOs**	**State Includes SA Services in HMOs/HIOs**	**Notes on Managed Care Coverage of SA Services**	**Source of Managed Care Coverage Information**	**Known Data Quality Issues**
Illinois (IL)	X		X	IL's Voluntary Managed Care includes inpatient/outpatient MH & SUDs through the MCO.	2008 National Summary of State Medicaid Managed Care Programs -- page 538	No significant issues.
Indiana (IN)	X		X	Under Hoosier Healthwise, all MH & SA services are covered through the MCO. Under HIP, inpatient SA is covered, but there is no mention of MH services or outpatient SA.	2008 National Summary of State Medicaid Managed Care Programs -- pages 77 & 243	No significant issues.
Iowa (IA)	X	X		All services are through the BHO; none provided through the HMO. By February 2005, only 1 HMO was left in the state. As of February 2009, enrollment in this HMO ended.	2008 National Summary of State Medicaid Managed Care Programs -- page 393	In the LT file, only 88% of claims have a primary diagnosis code. Only 96.6% of managed care enrollees have capitation payments reported.
Kansas (KS)	X	X		MCO does not cover MH/SUD services. State has SUD PIHP & MH PAHP.	2008 National Summary of State Medicaid Managed Care Programs -- pages 402 & 620	BHP-ASO (Administrative Services Only) benefit, which covers only administrative costs of coordinating MH benefits, not benefits themselves, is not recorded in Claims or Eligibility data.
Kentucky (KY)	X	X		KY Health Care Partnership Program MCO does not cover MH or SUD services, with the exception of inpatient medical detoxification.	2008 National Summary of State Medicaid Managed Care Programs -- page 248	Private health insurance reporting unreliable before October 2008.
Louisiana (LA)		NA	NA	NA	NA	Private health insurance reporting may be unreliable in 2008. In the LT file, only 86.9% of claims have primary DX code.
Maine (ME)		NA	NA	NA	NA	ME was unable to report accurately its IP/LT/OT claims, as it did not have a fully functional MMIS. The MAX 2008 files contain only the RX & eligibility information.

TABLE E.2 (*continued*)						
	State Has HMO/HIO	**State Carves SA Out of HMOs/HIOs**	**State Includes SA Services in HMOs/HIOs**	**Notes on Managed Care Coverage of SA Services**	**Source of Managed Care Coverage Information**	**Known Data Quality Issues**
Maryland (MD)	X		X	MD's HealthChoice MCO includes coverage for inpatient/outpatient SUDs.	2008 National Summary of State Medicaid Managed Care Programs -- page 255	In the LT file, only 63.7% of claims have primary DX code. Only 88.1% of managed care enrollees have capitation claims.
Massachusetts (MA)	X		X	MA's Mass Health covers services under 'MH/SUD PIHP -- Risk-based Capitation,' (this is their BHO) & 'MCO (Comprehensive Benefits) -- Risk-based Capitation.' If enrollee is in both, it is unclear who pays for services.	2008 National Summary of State Medicaid Managed Care Programs -- pages 262–264	MAX 2008 contains only claims adjudicated through Q2 FY 2009. In the LT file, only 7.9% of claims have a primary diagnosis code; in the OT file, only 44.6% do. A high percentage (24.7%) of MA enrollees have private health insurance. Only 94.4% of managed care enrollees have capitation payments.
Michigan (MI)	X		X	MI's Comprehensive Health Plan includes outpatient MH services under the MCO. MI's Specialty PIHPs (the BHO) include SA services. It appears the BHO pays for SA services, but if enrollee is in both, it is unclear who pays for MH services.	2008 National Summary of State Medicaid Managed Care Programs -- pages 87, 629	In the OT file, only 79.5% of claims have primary diagnosis codes. Only 95% of managed care enrollees have capitation claims.
Minnesota (MN)	X		X	MN's Consolidated Chemical Dependency Treatment Fund includes SA inpatient & outpatient services under the County Case Manager program paid FFS. MN's Prepaid Medical Assistance Program--1115(a), MinnesotaCare Program For Families & Children, MN Prepaid Medical Assistance Program--1932(a), MN Disability Health Options (MnDHO), MN Senior Health Options Program (MSHO), Special Needs Basic Care, & MN Senior Care/MN Senior Care Plus all include services for inpatient/ outpatient SA.	2008 National Summary of State Medicaid Managed Care Programs -- pages 93, 273, 279, 417, 543, 548, 553, 634	Through September 2008, some aliens eligible only for emergency services may have been reported to RBF 5. MN moved these individuals to RBF 2 in October 2008.
Mississippi (MS)		NA	NA	NA	NA	No significant issues.
Missouri (MO)	X		X	MO's HealthNet Managed Care program includes MH/SA services.	2008 National Summary of State Medicaid Managed Care Programs -- page 96	No significant issues.
Montana (MT)		NA	NA	NA	NA	Some individuals in UEGs 11-12, 22, 34-35, 42, 44, & 48 may have been incorrectly assigned RBF 5.

TABLE E.2 (*continued*)						
	State Has HMO/HIO	**State Carves SA Out of HMOs/HIOs**	**State Includes SA Services in HMOs/HIOs**	**Notes on Managed Care Coverage of SA Services**	**Source of Managed Care Coverage Information**	**Known Data Quality Issues**
Nebraska (NE)	X	X		NE Health Connection Combined Waiver Program--1915(b) includes adult SA treatment & inpatient & outpatient MH services under the Specialty Physician Case Management (SPCM) Program. The MCOs under this program do not cover MH/SA services.	2008 National Summary of State Medicaid Managed Care Programs -- page 108	No significant issues.
Nevada (NV)	X			NV's Mandatory Health Maintenance Program includes inpatient/outpatient MH services under the MCO. SA is not mentioned.	2008 National Summary of State Medicaid Managed Care Programs -- page 428	No significant issues.
New Hampshire (NH)		NA	NA	NA	NA	In the OT file, only 79.3% of claims have primary diagnosis code. DMP plan not reported in MAX data.
New Jersey (NJ)	X		X	NJ FamilyCare--1915(b) & NJ FamilyCare --1932(a) include inpatient/outpatient SA services under the MCOs.	2008 National Summary of State Medicaid Managed Care Programs -- pages 116 & 437	No significant issues.
New Mexico (NM)	X	X		NEW MEXICO SALUD! Includes services under the MH PIHP, a BHO for MH services. SA services are not mentioned specifically.	2008 National Summary of State Medicaid Managed Care Programs -- page 124	In the OT file, only 54.7% of claims have primary diagnosis codes.
New York (NY)	X		X	NY's Federal-State Health Reform Partnership (F-SHRP), F-SHRP--Medicaid Advantage, Partnership Plan--Family Health Plus (both MCO & PPO), & Partnership Plan Medicaid Managed Care Program include inpatient/outpatient substance misuse services under the MCOs.	2008 National Summary of State Medicaid Managed Care Programs -- pages 284, 292, 296, 298, 301	Only 92.2% of managed care enrollees had capitation claims.
North Carolina (NC)	X		X	NC's Piedmont Cardinal Health Plan, a BHO, covers MH & SUD services. This plan operates in only 5 counties in the state.	NA	No significant issues.
North Dakota (ND)		NA	NA	NA	NA	No significant issues.
Ohio (OH)	X		X	Ohio's full-risk managed care program includes both inpatient & outpatient SA services.	2008 National Summary of State Medicaid Managed Care Programs -- page 453	In the LT file, only 88% of claims have a primary diagnosis code;

TABLE E.2 (*continued*)						
	State Has HMO/HIO	**State Carves SA Out of HMOs/HIOs**	**State Includes SA Services in HMOs/HIOs**	**Notes on Managed Care Coverage of SA Services**	**Source of Managed Care Coverage Information**	**Known Data Quality Issues**
Oklahoma (OK)		NA	NA	NA	NA	In the LT file, only 89.3% of claims have a primary diagnosis code; some of the diagnosis codes may have an extra 0 or 2 because this field is not edited by the state.
Oregon (OR)	X		X	OR MH/SUD PIHP is the state's BHO & includes SA services. OR also has an MCO program that includes SA services. It is unclear who would pay for services if enrollee is in both BHO & HMO.	2008 National Summary of State Medicaid Managed Care Programs -- pages 317 & 320	In the OT file, only 50.6% of claims have a primary diagnosis code.
Pennsylvania (PA)	X	X		PA has a BHO that appears to cover all SA services. The HealthChoices MCO program does not cover these services.	2008 National Summary of State Medicaid Managed Care Programs -- page 143	In the OT file, only 79.9% of claims have primary diagnosis codes. The diagnosis code on some EPSDT screens is "EPSDT."
Rhode Island (RI)	X		X	RI's Rite Care program includes inpatient & outpatient SA services. Also, RI's Rhody Health Partners program includes inpatient & outpatient SA services.	2008 National Summary of State Medicaid Managed Care Programs -- page 329	Private insurance enrollment information is not reliable.
South Carolina (SC)	X	X	X	SC's HMO program includes alcohol & drug screening & physical exams through the Department of Alcohol & Drug Abuse Services; however, no mention of inpatient/outpatient SA services. SC also has a Medically Fragile managed care program, which excludes these services. Palmetto Physician Connections Offers a special MH & SA program. The other HMOs do not offer this program.	2008 National Summary of State Medicaid Managed Care Programs -- page 591	In the LT file, only 4.3% of claims have a primary diagnosis code; in the OT file, 70.4% do.
South Dakota (SD)		NA	NA	NA	NA	In the LT file, only 2.7% of claims have primary diagnosis code. Only 96.2% of managed care enrollees have capitation payments.
Tennessee (TN)	X		X	TN's MH/SUD PIHP is the state's BHO & includes SA services. However, the state's MCOs in the TennCare program also include inpatient & outpatient services. It is unclear if an enrollee is enrolled in both plans, which covers SA services.	2008 National Summary of State Medicaid Managed Care Programs -- pages 335 & 337	No significant issues.

TABLE E.2 (*continued*)						
	State Has HMO/HIO	**State Carves SA Out of HMOs/HIOs**	**State Includes SA Services in HMOs/HIOs**	**Notes on Managed Care Coverage of SA Services**	**Source of Managed Care Coverage Information**	**Known Data Quality Issues**
Texas (TX)	X		X	TX has an MH/SUD PIHP, its BHO, known as NorthSTAR. However, this BHO is reimbursed with a combination of FFS & risk-based capitation (mostly FFS). It is unclear what services are included in the capitation payment. TX also has risk-based MCOs, (the STAR, STARHealth, & STAR+PLUS programs) that include inpatient & outpatient SA services. State has a disease management program, TX Medicaid enhanced program, which does not include SA. This program is not coded as HMO in data.	2008 National Summary of State Medicaid Managed Care Programs -- pages 157, 163, 601, & 649	In the LT file, only 89.9% of claims have a primary diagnosis code; in the OT file, only 66.2% do. TX submits a few HMO capitation claims with a type of claim of FFS, instead of capitation. These are premium payments for private health insurance (OT). 2.5% of claims are missing eligibility information. Only 95.2% of managed care enrollees have capitation claims.
Utah (UT)		NA	NA	UT's Prepaid Mental Health Program covers MH services. There is no discussion of SA.	NA	MAX 2008 contains only claims adjudicated through Q1 FY 2009. 3.9% of claims are missing eligibility, & these are primarily capitation claims. In the OT file, only 78.8% of claims have primary diagnosis code. 3.9% of claims are missing eligibility information, & these are primarily capitation claims.
Vermont (VT)		NA	NA	NA	NA	No significant issues
Virginia (VA)	X		X	VA's Medallian MCO program includes inpatient MH & outpatient SA services.	2008 National Summary of State Medicaid Managed Care Programs -- page 189	From Q2 2007 to Q3 2008, 7,000-11,000 HMO enrollees were reported with 0-filled plan IDs. The state indicated that these people were not actually enrolled in HMOs. Only 94.7% of managed care enrollees have capitation payments.

TABLE E.2 (*continued*)						
	State Has HMO/HIO	**State Carves SA Out of HMOs/HIOs**	**State Includes SA Services in HMOs/HIOs**	**Notes on Managed Care Coverage of SA Services**	**Source of Managed Care Coverage Information**	**Known Data Quality Issues**
Washington (WA)	X	X	X	WA has a BHO known as the Integrated Mental Health Services program -- it is not clear whether this program covers SA services, as they are not mentioned specifically. WA also has MCOs in the WA Medicaid Integration Program (WMIP) that cover inpatient & outpatient SA services. It is not clear who covers SA costs when individuals are enrolled in both. MCOs in the Healthy Options program do not cover SA services.	2008 National Summary of State Medicaid Managed Care Programs -- pages 194 & 482	In the LT, file only 19.9% of claims have a primary diagnosis code; in the OT file, only 71.3% do.
West Virginia (WV)	X	X	X	WV's Mountain Health Choices covers inpatient MH & outpatient MH. There is no mention of SA. WV's Mountain Health Trust MCOs do not cover any MH or SA services.	2008 National Summary of State Medicaid Managed Care Programs -- pages 198 & 703.	DX codes are missing on most LT claims.
Wisconsin (WI)	X		X	WI MCOs in the BadgerCare Plus, Medicaid SSI Managed Care, & WI Partnership programs include inpatient & outpatient SA services. The state also has a BHO in the Children Come First & Wraparound Milwaukee programs that provides SA services. If individuals are enrolled in both the BHO & MCO, it is unclear who covers their SA services. In addition, WI has a long-term care PIHP program (1915(b)(c) waiver) that is risk-based & includes outpatient SA services.	2008 National Summary of State Medicaid Managed Care Programs -- pages 487, 493, 498, 606, 610, 655	WI was unable to report all of its claims by the prescribed deadline. The MAX 2008 files contain only claims adjudicated through Q3 FY 2009. RBF assignments became unreliable starting in October, when WI implemented a new MMIS, causing some enrollees to be mapped to incorrect RBF assignments. Only 97.4% of managed care enrollees have capitation claims.
Wyoming (WY)		NA	NA	NA	NA	No significant issues.

APPENDIX F. MEAN EXPENDITURES AND USERS PER ENROLLED MONTH IN MAJORITY FEE-FOR-SERVICE STATES

TABLE F.1. Mean Expenditures and Users in Majority FFS State Core SA Treatment Services, Full-Benefit Enrollees

Eligibility/ Demographic Group	Expenditures per Month			Users per 1,000 Months		
	Low	Medium	High	Low	Medium	High
Children <12	0.02	0.03	0.03	0.04	0.03	0.04
Non-Disabled						
12-17, Female	0.46	4.00	2.51	0.38	1.13	1.10
12-17, Male	0.80	9.00	4.14	0.67	2.14	1.89
18-20, Female	0.63	3.36	10.46	0.86	1.93	3.84
18-20, Male	0.99	10.04	15.72	1.24	3.41	7.44
21-34, Female	2.82	6.65	18.11	2.07	3.64	5.98
21-34, Male	6.34	6.49	33.83	3.99	5.04	11.66
35-44, Female	3.98	8.06	15.22	2.77	3.90	5.40
35-44, Male	8.31	6.23	22.98	4.70	4.27	8.52
45-64, Female	4.74	5.76	11.37	2.73	2.98	4.08
45-64, Male	5.62	4.38	14.47	3.81	2.99	5.64
65 or Older, Female	3.31	1.15	1.12	0.47	0.35	0.57
65 or Older, Male	2.84	4.27	9.35	0.68	0.95	2.62
Disabled						
12-17, Female	0.91	3.06	3.72	0.66	1.13	2.67
12-17, Male	1.81	5.83	3.82	1.18	1.91	3.12
18-20, Female	1.90	3.51	16.71	1.46	2.17	7.34
18-20, Male	2.44	5.63	16.65	1.88	2.87	8.08
21-34, Female	4.40	9.12	32.46	3.11	4.79	11.49
21-34, Male	5.68	9.46	40.18	3.36	5.49	14.36
35-44, Female	7.17	18.30	60.08	4.25	7.11	19.73
35-44, Male	12.13	31.30	94.53	5.91	9.11	23.89
45-64, Female	3.95	9.34	36.77	2.73	3.99	10.45
45-64, Male	13.61	26.72	108.67	5.68	8.31	22.72
65 or Older, Female	4.50	3.76	11.03	1.07	0.69	1.70
65 or Older, Male	7.91	14.35	3.36	2.24	2.99	4.51

TABLE F.2. Mean Expenditures and Users in Majority FFS State Core SA Treatment Services, Partial-Benefit and Dual Enrollees						
Eligibility/ Demographic Group	Expenditures per Month			Users per 1,000 Months		
	Low	Medium	High	Low	Medium	High
Children <12	0.00	0.00	0.00	0.02	0.02	0.02
Non-Disabled						
12-17, Female	0.27	4.74	1.67	0.24	0.86	0.73
12-17, Male	0.26	10.21	3.54	0.31	1.56	1.19
18-20, Female	0.18	3.02	7.41	0.46	1.20	2.59
18-20, Male	0.55	16.76	14.09	0.67	3.10	5.13
21-34, Female	1.14	2.72	28.56	0.98	1.60	5.81
21-34, Male	6.19	2.94	71.93	5.14	2.79	18.41
35-44, Female	2.77	2.14	13.14	1.36	1.67	3.55
35-44, Male	7.03	2.93	32.40	4.86	2.77	11.90
45-64, Female	5.48	1.59	9.31	0.89	1.40	3.08
45-64, Male	1.52	1.63	16.52	1.50	1.43	7.08
65 or Older, Female	0.33	1.37	9.93	1.00	0.54	0.42
65 or Older, Male	0.54	5.73	0.76	1.18	1.94	0.67
Disabled						
12-17, Female	0.01	0.01	0.14	0.11	0.04	0.52
12-17, Male	0.01	0.01	0.00	0.05	0.08	0.00
18-20, Female	0.10	2.71	0.40	0.31	0.63	1.56
18-20, Male	0.12	1.23	0.56	0.47	0.95	0.32
21-34, Female	0.20	2.25	14.64	0.41	0.87	4.52
21-34, Male	0.25	3.67	1.28	0.65	1.32	1.99
35-44, Female	0.86	1.84	15.94	0.63	1.47	4.44
35-44, Male	0.99	1.70	11.23	0.64	1.32	3.45
45-64, Female	0.94	3.23	38.26	1.19	2.55	12.82
45-64, Male	2.39	4.02	11.84	1.30	2.68	6.17
65 or Older, Female	2.74	1.64	21.65	1.17	1.45	5.11
65 or Older, Male	3.27	5.89	12.37	2.09	3.58	7.51
Duals						
Less than 18	0.06	0.06	0.06	0.73	0.73	0.73
18-34, Female	0.81	4.23	17.70	0.80	3.25	7.84
18-34, Male	1.22	4.35	16.76	1.20	3.69	9.20
35-44, Female	2.77	4.14	15.13	1.36	3.08	7.91
35-44, Male	7.03	5.18	20.50	4.86	4.03	9.71
45-64, Female	5.48	2.24	10.44	0.89	1.68	4.94
45-64, Male	1.52	5.16	23.23	1.50	3.25	8.35
65 or Older, Female	0.33	0.78	3.12	1.00	0.22	0.46
65 or Older, Male	0.54	5.37	21.32	1.18	0.99	2.05

TABLE F.3. Mean Expenditures and Users in Majority FFS State Treatment Services Associated with Fetal Exposure to Alcohol or Drugs, Full-Benefit Enrollees									
Eligibility/ Demographic Group	Expenditures per Month			Users per 1,000 Months -- Unduplicated			Users per 1,000 Months -- All		
	Low	Medium	High	Low	Medium	High	Low	Medium	High
Full-Benefit Enrollees									
<1 year old	0.39	0.98	3.04	0.30	0.48	1.28	0.33	0.52	1.41
Children, 1-11	0.02	0.02	0.04	0.01	0.02	0.04	0.01	0.02	0.04
Women of Childbearing Age, 18-44	0.08	0.06	0.06	0.20	0.20	0.08	0.22	0.25	0.21
All Others	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01

TABLE F.4. Mean Expenditures and Users in Majority FFS State Treatment Services Associated with Fetal Exposure to Alcohol or Drugs, Partial-Benefit Enrollees and Dual Eligibles			
Eligibility/ Demographic Group	**Expenditures per Month**	**Users per 1,000 Months -- Unduplicated**	**Users per 1,000 Months -- All**
Partial-Benefit Enrollees			
<1 year old	0.71	0.11	0.13
Children, 1-11	0.01	0.01	0.01
Women of Childbearing Age, 18-44	0.03	0.11	0.13
All Others	0.01	0.01	0.01
Dual Eligibles			
Women of Childbearing Age, 18-44	0.04	0.08	0.10
All Others	0.01	0.00	0.00

TABLE F.5. Mean Expenditures and Users in Majority FFS State Treatment Services for Poisoning and Other Medical Conditions 100% Attributable to Alcohol or Drugs, Full-Benefit Enrollees			
Eligibility/ Demographic Group	**Expenditures per Month**	**Users per 1,000 Months -- Unduplicated**	**Users per 1,000 Months -- All**
Poisoning Related to Drugs or Alcohol			
<18	0.02	0.04	0.04
18 or Older	0.16	0.06	0.10
Other Medical Conditions 100% Attributable to Drugs or Alcohol			
<21	0.00	0.00	0.00
Non-Dual, Non-Disabled			
21-34, Female	0.04	0.02	0.03
21-34, Male	0.17	0.06	0.08
35-44, Female	0.31	0.06	0.09
35-44, Male	0.84	0.13	0.21
45-64, Female	0.51	0.12	0.17
45-64, Male	1.19	0.26	0.37
65 or Older, Female	0.01	0.05	0.07
65 or Older, Male	0.98	0.19	0.23
Non-Dual, Disabled			
21-34, Female	0.49	0.04	0.08
21-34, Male	0.74	0.07	0.14
35-44, Female	2.41	0.22	0.39
35-44, Male	6.03	0.49	0.83
45-64, Female	2.42	0.35	0.49
45-64, Male	8.40	1.03	1.55
65 or Older, Female	0.42	0.17	0.20
65 or Older, Male	5.56	0.57	0.66

TABLE F.6. Mean Expenditures and Users in Majority FFS State Treatment Services for Poisoning and Other Medical Conditions 100% Attributable to Alcohol or Drugs, Partial-Benefit Enrollees and Duals			
Eligibility/ Demographic Group	**Expenditures per Month**	**Users per 1,000 Months -- Unduplicated**	**Users per 1,000 Months -- All**
Poisoning Related to Drugs or Alcohol			
Non-Dual			
<18	0.00	0.01	0.02
18 or Older	0.03	0.02	0.03
Dual			
<18	0.00	0.00	0.00
18-64	0.06	0.05	0.06
65 or Older	0.03	0.02	0.02
Other Medical Conditions 100% Attributable to Drugs or Alcohol			
<21	0.00	0.00	0.00
Non-Dual, Non-Disabled			
21-34, Female	0.05	0.02	0.02
21-34, Male	1.37	0.05	0.09
35-44, Female	0.15	0.05	0.07
35-44, Male	0.50	0.11	0.19
45-64, Female	0.50	0.09	0.12
45-64, Male	0.66	0.24	0.33
65 or Older, Female	0.10	0.17	0.19
65 or Older, Male	1.12	0.56	0.72
Non-Dual, Disabled			
21-34, Female	0.06	0.03	0.03
21-34, Male	0.04	0.02	0.02
35-44, Female	1.11	0.12	0.17
35-44, Male	1.82	0.47	0.67
45-64, Female	1.20	0.21	0.26
45-64, Male	7.61	1.08	1.47
65 or Older, Female	0.01	0.07	0.07
65 or Older, Male	0.04	0.04	0.04
Duals			
21-64, Female	0.19	0.10	0.13
21-64, Male	0.47	0.23	0.32
65 or Older, Female	0.12	0.03	0.03
65 or Older, Male	0.42	0.14	0.18

TABLE F.7. Mean Expenditures and Users in Majority FFS State MH Services with a Secondary SA Diagnosis, Full-Benefit Enrollees									
Eligibility/ Demographic Group	Expenditures per Month			Users per 1,000 Months -- Unduplicated			Users per 1,000 Months -- All		
	Low	Medium	High	Low	Medium	High	Low	Medium	High
Children <12[a]	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
Non-Dual, Non-Disabled									
12-20, Female	1.08	2.86	6.58	0.17	0.33	0.44	0.23	0.52	0.64
12-20, Male	1.58	3.37	6.10	0.23	0.38	0.47	0.32	0.62	0.71
21-44, Female	1.98	1.76	3.47	0.55	0.48	0.62	0.89	0.93	1.20
21-44, Male	3.02	1.77	4.18	0.81	0.56	0.52	1.58	1.03	1.16
45-64, Female	2.13	1.37	2.23	0.57	0.33	0.49	0.99	0.65	0.91
45-64, Male	0.53	0.89	3.08	0.47	0.29	0.30	0.93	0.54	0.65
65 or Older, Female	0.01	0.38	2.00	0.04	0.05	0.18	0.04	0.06	0.21
65 or Older, Male	0.00	1.54	5.03	0.03	0.09	0.15	0.06	0.18	0.31
Non-Dual, Disabled									
12-20, Female	3.16	6.26	54.03	0.37	0.76	1.39	0.53	1.13	2.69
12-20, Male	4.63	7.31	15.70	0.51	0.80	0.91	0.74	1.19	1.34
21-44, Female	8.67	14.88	64.17	1.41	1.69	2.64	2.29	3.17	7.55
21-44, Male	16.21	27.10	99.82	2.20	2.27	3.70	3.28	4.35	9.29
45-64, Female	4.71	7.15	32.00	0.82	0.90	1.94	1.29	1.63	4.54
45-64, Male	9.76	17.05	49.83	1.17	1.35	2.55	1.99	2.90	7.13
65 or Older, Female	4.54	0.23	19.80	0.05	0.08	0.00	0.10	0.08	0.85
65 or Older, Male	1.31	1.64	2.21	0.24	0.29	0.00	0.24	0.41	1.13
a. Average across all state types is listed for children under 12.									

TABLE F.8. Mean Expenditures and Users in Majority FFS State MH Services with a Secondary SA Diagnosis, Partial-Benefit and Dual Enrollees									
Eligibility/ Demographic Group	Expenditures per Month			Users per 1,000 Months -- Unduplicated			Users per 1,000 Months -- All		
	Low	Medium	High	Low	Medium	High	Low	Medium	High
Children <12[a]	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
Non-Dual, Non-Disabled									
12-20	0.45	1.88	5.54	0.12	0.25	0.29	0.14	0.37	0.40
21-44	1.02	0.67	4.13	0.37	0.29	0.20	0.61	0.48	0.66
45-64	2.32	0.55	2.41	0.49	0.17	0.12	0.73	0.36	0.34
65 or Older	0.07	0.64	5.00	0.00	0.14	0.26	0.13	0.21	0.26
Non-Dual, Disabled									
12-20	1.82	3.11	7.55	0.24	0.36	0.19	0.33	0.50	0.48
21-44	1.18	4.40	12.47	0.36	0.58	0.56	0.53	0.89	1.21
45-64	0.93	1.78	6.82	0.28	0.49	0.12	0.44	0.81	0.70
65 or Older	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02	0.00
Duals									
12-20	3.04	33.18	52.76	0.78	1.16	1.93	0.91	2.39	2.89
21-44	4.80	3.84	16.07	1.41	1.48	2.58	2.03	2.16	4.88
45-64	2.05	2.00	10.42	0.71	0.79	1.83	1.02	1.14	3.24
65 or Older	0.23	0.29	1.34	0.05	0.06	0.14	0.08	0.09	0.21
a. Average across all state types is listed for children under 12.									

TABLE F.9. Summary of Imputation for Enrollees with Coverage of SA Under Managed Care							
State	**Basis for Imputation**	**Number of Enrolled Months, 12+**	**% of Months with Expenditures Imputed**	**% of Months Imputed Based on FFS States**	**Core Expenditures per Enrolled Month, 12+**	**Specialty SA Treatment Supply Category**	**Notes**
Alabama (AL)	No managed care SA coverage	4,508,429	0.0	0.0	1.84	Low	
Alaska (AK)	No managed care SA coverage	659,931	0.0	0.0	10.24	Medium	Only 57% of OT file claims have primary diagnosis code
Arizona (AZ)	Encounter data for full-benefit core SA services, AZ FFS experience for all others	8,892,311	75.1	9.5	16.06	Medium	
Arkansas (AR)	No managed care SA coverage	3,419,417	0.0	0.0	1.45	Low	
California (CA)	CA FFS experience for disabled & partial-benefit/Tier I & Tier II state experience for adults & children	48,737,825	41.3	33.0	6.50	Medium	Institutional long-term care claims have only one diagnosis code. Not able to load one of 50 other service file claim CDs.
Colorado (CO)	Tier I & Tier II state experience	2,770,430	92.2	92.2	21.72	High	BHO is assumed to cover SA services although these services are not specifically mention in the program summary
Connecticut (CT)	CT FFS experience for full-benefit/Tier I & Tier II state for duals & partial-benefit	3,696,547	4.7	0.5	14.82	High	
Delaware (DE)	Tier I & Tier II state experience	1,151,093	66.6	66.6	9.94	Medium	
District of Columbia (DC)	DC FFS experience for disabled/Tier I & Tier II state experience for all others	1,203,121	53.3	51.2	10.73	High	Only 9% of claims in the institutional long-term care file have a primary diagnosis
Florida (FL)	FL FFS experience for adult, children & disabled/ Tier I & Tier II state experience for duals & partial-benefit.	15,267,255	28.2	3.0	2.68	Low	Only 32% of institutional long-term care & 78% of other services file claims have a primary diagnosis code.
Georgia (GA)	GA FFS experience for disabled/Tier I & Tier II state experience for all others	8,008,475	41.9	41.4	2.61	Low	
Hawaii (HI)	HI FFS experience for disabled/Tier I & Tier II state experience for all others	1,575,353	65.7	65.0	5.30	Low	Only 75% of OT file claims have primary diagnosis.

TABLE F.9 (*continued*)							
State	**Basis for Imputation**	**Number of Enrolled Months, 12+**	**% of Months with Expenditures Imputed**	**% of Months Imputed Based on FFS States**	**Core Expenditures per Enrolled Month, 12+**	**Specialty SA Treatment Supply Category**	**Notes**
Idaho (ID)	No managed care SA coverage	1,046,461	0.0	0.0	2.29	Low	
Illinois (IL)	IL FFS experience full-benefit non-duals/Tier I & Tier II experience for all others	15,996,529	4.4	0.2	6.95	Medium	
Indiana (IN)	IN FFS experience for disabled/Tier I & Tier II state experience for all others	5,948,452	50.9	49.1	5.57	Medium	
Iowa (IA)	Tier I & Tier II state experience	2,726,468	71.6	71.6	3.66	Low	Only 88% of institutional long-term care claims have a primary diagnosis code.
Kansas (KS)	Encounter data for core SA services full-benefit enrollees & Tier I & Tier II expenditures for other services	1,735,951	83.3	28.2	9.77	Medium	Expenditures associated with care coordination for BHO are not included in claims data.
Kentucky (KY)	No managed care SA coverage	5,255,303	0.0	0.0	7.03	Medium	
Louisiana (LA)	No managed care SA coverage	6,447,109	0.0	0.0	1.81	Low	Only 87% of institutional long-term care claims have a primary diagnosis code.
Maine (ME)	Tier I & Tier II state experience	2,702,131	100.0	100.0	18.57	High	MAX does not include inpatient hospital, institutional long-term care or other service claims for ME.
Maryland (MD)	Tier I & Tier II state experience	4,704,518	66.8	66.8	14.34	High	Only 64% of institutional long-term care claims have a primary diagnosis code.
Massachusetts (MA)	MA FFS experience full-benefit/Tier I & Tier II state experience duals & partial-benefit	9,846,726	29.0	0.0	10.07	High	Only 8% of institutional long-term care claims & 45% of other service file claims have a primary diagnosis code.
Michigan (MI)	Tier I & Tier II state experience	12,003,858	49.9	49.9	5.48	Medium	Only 80% of other service file claims have a primary diagnosis code.
Minnesota (MN)	MN FFS experience for disabled/Tier I & Tier II state experience for all other	4,614,974	57.6	56.9	11.66	Medium	

TABLE F.9 (*continued*)							
State	**Basis for Imputation**	**Number of Enrolled Months, 12+**	**% of Months with Expenditures Imputed**	**% of Months Imputed Based on FFS States**	**Core Expenditures per Enrolled Month, 12+**	**Specialty SA Treatment Supply Category**	**Notes**
Mississippi (MS)	No managed care SA coverage	3,848,621	0.0	0.0	5.23	Low	
Missouri (MO)	MO FFS experience full-benefit/Tier I & Tier II state experience duals & partial-benefit.	5,949,243	33.6	2.4	12.81	Medium	
Montana (MT)	No managed care SA coverage	560,597	0.0	0.0	10.95	Medium	
Nebraska (NE)	Tier I & Tier II state experience	1,269,547	76.4	76.4	14.14	Low	
Nevada (NV)	NV FFS experience for disabled/Tier I & Tier II state experience for adults & children	1,213,271	34.4	34.4	6.59	High	
New Hampshire (NH)	No managed care SA coverage	816,263	0.0	0.0	8.66	Medium	
New Jersey (NJ)	NJ FFS experience for disabled/Tier I & Tier II state experience for all others	6,784,507	60.6	53.1	10.78	Medium	
New Mexico (NM)	Tier I & Tier II state experience	2,979,072	53.7	53.7	9.64	High	
New York (NY)	NY FFS experience for disabled/Tier I & Tier II state experience for all others	35,887,261	60.6	55.2	31.69	High	
North Carolina (NC)	No managed care SA coverage	8,900,845	0.0	0.0	5.37	Medium	
North Dakota (ND)	No managed care SA coverage	388,689	0.0	0.0	11.01	Medium	
Ohio (OH)	OH FFS experience for disabled/Tier I & Tier II state experience for all others	13,214,717	62.0	53.6	13.91	Medium	Only 88% of institutional long-term care claims have a primary diagnosis code.
Oklahoma (OK)	No managed care SA coverage	3,648,815	0.0	0.0	2.50	Medium	Only 89% of institutional long-term care claims have a primary diagnosis code.
Oregon (OR)	Tier I & Tier II state experience	2,905,508	63.4	63.4	13.96	High	Only 51% of other service file claims have a primary diagnosis code.
Pennsylvania (PA)	Tier I & Tier II state experience	13,873,346	89.4	89.4	7.43	Medium	Only 80% of other service file claims have a primary diagnosis code.

TABLE F.9 (*continued*)							
State	**Basis for Imputation**	**Number of Enrolled Months, 12+**	**% of Months with Expenditures Imputed**	**% of Months Imputed Based on FFS States**	**Core Expenditures per Enrolled Month, 12+**	**Specialty SA Treatment Supply Category**	**Notes**
Rhode Island (RI)	RI FFS experience for disabled/Tier I & Tier II state experience for all others	1,410,457	51.5	49.8	14.25	High	
South Carolina (SC)	SC FFS Experience full-benefit/Tier I & Tier II state for all others	4,725,345	18.8	1.5	4.82	Medium	Only 4% of institutional long-term care claims & 70% of other service file claims have a primary diagnosis code.
South Dakota (SD)	No managed care SA coverage	658,947	0.0	0.0	9.05	Medium	Only 3% of institutional long-term care claims have a primary diagnosis code.
Tennessee (TN)	TN FFS experience	9,815,245	32.3	32.3	1.60	Low	
Texas (TX)	TX FFS Experience	15,329,081	41.4	12.7	1.46	Low	90% of institutional long-term care claims & 66% of other service file claims have a primary diagnosis code.
Utah (UT)	No managed care SA coverage	1,305,163	0.0	0.0	6.77	Medium	SA is carved-out of MH managed care program, but may miss co-morbid services. Only 79% of other service file claims have a primary diagnosis code. MAX 2008 contains only claims adjudicated through Q1 FY 2009, thus expenditures may be incomplete.
Vermont (VT)	No managed care SA coverage	1,159,336	0.0	0.0	25.99	High	
Virginia (VA)	VA FFS experience for disabled/Tier I &Tier II state experience for all others	5,052,885	45.5	45.5	3.67	Low	

TABLE F.9 (*continued*)							
State	**Basis for Imputation**	**Number of Enrolled Months, 12+**	**% of Months with Expenditures Imputed**	**% of Months Imputed Based on FFS States**	**Core Expenditures per Enrolled Month, 12+**	**Specialty SA Treatment Supply Category**	**Notes**
Washington (WA)	Tier I & Tier II state experience	5,909,882	100.0	100.0	24.33	High	State-specific data for the disabled population was not used because expenditures for this population were substantially higher costs per enrolled month than averages for Tier I & Tier II high-supply states. Only 20% of institutional long-term care claims & 71% of other service file claims have a primary diagnosis code.
West Virginia (WV)	WV FFS experience for full-benefit/Tier I & Tier II state for duals & partial-benefit.	2,461,378	19.2	2.2	9.31	Medium	Diagnosis codes are missing on most institutional long-term care claims.
Wisconsin (WI)	WI FFS experience for disabled/Tier I & Tier II state experience for all others.	6,565,021	41.1	41.0	6.17	Low	MAX 2008 contains only claims adjudicated through Q3 FY 2009, thus expenditures may be incomplete.
Wyoming (WY)	No managed care SA coverage	358,612	0.0	0.0	5.52	High	
Total		**329,928,722**	**42.4**	**33.4**	**10.20**		

DEVELOPING MEDICAID ESTIMATES FOR SUBSTANCE ABUSE TREATMENT

Reports Available

Developing Medicare and Medicaid Substance Abuse Treatment Spending Estimates

HTML	http://aspe.hhs.gov/daltcp/reports/2012/MSATest.shtml
PDF	http://aspe.hhs.gov/daltcp/reports/2012/MSATest.pdf

Medicaid Substance Abuse Treatment Spending: Findings Report

Executive Summary	http://aspe.hhs.gov/daltcp/reports/2012/MSATspendes.shtml
HTML	http://aspe.hhs.gov/daltcp/reports/2012/MSATspend.shtml
PDF	http://aspe.hhs.gov/daltcp/reports/2012/MSATspend.pdf

To obtain a printed copy of this report, send the full report title and your mailing information to:

U.S. Department of Health and Human Services
Office of Disability, Aging and Long-Term Care Policy
Room 424E, H.H. Humphrey Building
200 Independence Avenue, S.W.
Washington, D.C. 20201
FAX: 202-401-7733
Email: webmaster.DALTCP@hhs.gov

NOTE: All requests must be in writing.

RETURN TO:

Office of Disability, Aging and Long-Term Care Policy (DALTCP) Home
http://aspe.hhs.gov/office_specific/daltcp.cfm

Assistant Secretary for Planning and Evaluation (ASPE) Home
http://aspe.hhs.gov

U.S. Department of Health and Human Services (HHS) Home
http://www.hhs.gov